

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Claire A. CAJACOB *et al.*

Appln. No.: 09/233,218

Filed: January 20, 1999

For: Nucleic Acid Molecules and Other  
Molecules Associated with the  
Tetrapyrrole Pathway



Art Unit: 1631

Examiner: Y. Kim

Atty. Docket: 04983.0025.00US01/  
38-21(15090)B

**Statement Regarding Sequence Submission**

**BOX SEQUENCE**

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

In accordance with 37 C.F.R. §§ 1.821(f) and (g), and 1.825(b), the paper copy of the substitute Sequence Listing and the computer readable copy of the substitute Sequence Listing submitted herewith in the above-mentioned application are the same, and contain no new matter.

Respectfully submitted,

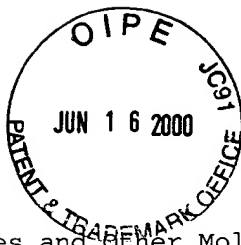
A handwritten signature in black ink, appearing to read "David R. Marsh".

David R. Marsh (Reg. No. 41,408)

June E. Cohan (Reg. No. 43,741)

Date: June 16, 2000

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Attachment  
"A"

<110> CaJacob, Claire A.  
Liu, Jingdong

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The Tetrapyrrole Pathway

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 aaagcatcag cttcgtttga aaaccagttg tctcaggagg ccagtgatac agagaaggct 120  
 cgtaagatct gggagattag tgagaaactt gttgggttttg cctaagtggg aggagcctcc 180  
 aacatcccat gttgttctag agaccttgca cttgcatgga ggaagaaaat gacgtctcaa 240  
 aagagtggat agataa 256

<210> 33  
 <211> 259  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 33

ggctaaacag ctcagccatg attgatgggtg gagacttcga tggtgccaag gcgtacaagg 60  
 acagcaaagt ctgcaatatg ctcacaatgc aagaattcca cagacgattc catgaggaaa 120  
 ctggaatcac atttgcttcc ctttaccctcg gttgcattgc cacaacaggc ctgttcagag 180  
 agcacttccc ttgttcagaa actctgttnc cctcccatc cagaagtaca taaaccaaag 240  
 gctatgtctc cggaagatg 259

<210> 34  
 <211> 176  
 <212> DNA  
 <213> Glycine max

<400> 34

agcataatgc cacaaatgca gaatttcaca gacgattcca tgaggatact ggaatcacat 60  
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 tggttcagaac tctgtccctc cattccagaa gtacataacc aaagggtat gtctca 176

<210> 35  
 <211> 256

<212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 35  
  
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 tggagctgga acgcggcctc tgcttcgttt gaaaaccaat tgtcccaaga agccagcgat 120  
 gcagataagg tcgcaagggt tgggagatta gtgagaaact tactggtttg gcttaagtgg 180  
 tactttggca gcttccaata tccatcttga tttagggaca tttgtcatgg agttcaataa 240  
 catctcagaa gagttt 256

<210> 36  
 <211> 248  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 36  
  
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 ggagctggaa cgcggncctg ctgcttcggt tgaaaaccaa ttgtgcccaa gaagccagcg 120  
 atgcagataa ggctncgcaa ggtttgggag attagtgaga aacttactgg tttgggctaa 180  
 gtgggtacttt ggcagcttcc caatatccat ctgatttagg gacattgtca ggagttcaat 240  
 aacatctc 248

<210> 37  
 <211> 335  
 <212> DNA  
 <213> Glycine max  
  
 <400> 37  
  
 ggtgtgtctc tcaaggactc caccttggtc ggtctttcat tttcagaacc tatcaaagct 60  
 aacttcagct cttctgcatt gaggtgtcag aggggaattcg aacaaaagct ctgtgctgtg 120  
 agggccgaaa cagtggctac agcctctcca gcagttacca agtctacacc agaaggggaag 180  
 aaaacattga ggaagggcag tgttgtgata actgggggctt catctggact aggcctggcc 240  
 actgctaagg ctttggctga gacgggaaaa tggcatgtaa taatggcctg cagggattac 300  
 ctcaaagctg caagagctgc aaaatccgct ggcat 335

<210> 38  
 <211> 258  
 <212> DNA  
 <213> Glycine max

<400> 38

cggaaaatgg catgtaataa tggcctgcag ggattacctc aaagctgcaa gagctgcaaa 60  
 atccgctggc atggctaagg aaaactacac catcatgcac taggaccttg cctcgctcga 120  
 cagtgtccgc caatttggtg ataacttcag aagatcggaa atgccgtag atgtgctggt 180  
 ttgcaatgct gctgtttact tgccaactgc taaggaacct accttcactg ctgagggctt 240  
 tgaacttagt gttgggac 258

<210> 39  
 <211> 246  
 <212> DNA  
 <213> Glycine max

<400> 39

aaacattgag gaagggcagt gttgtgataa ctggggcttc atctggacta ggcttgccca 60  
 ctgctaaggc tttggctgag acgggaaaat ggcatgtaat aatggcctgc agggattacc 120  
 tcaaagctgc aagagctgca aaatccgctg gcatggctaa ggaaaactac accatcatgc 180  
 acttggaact tgcctcgctc gacagtgtcc gccaatgtgt tgataacttc agaagatcgg 240  
 aaatgc 246

<210> 40  
 <211> 260  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 40

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 gaccttgect cgctcgacag tgtccgcaa tttgttgata acttcagaag atcagaaatg 120  
 ccgtagatg tgctggtttg ccatgctgct gtttacttgc caactgctaa ggaacctacc 180  
 ttcactgctg agggctttga acttagtggt gggacaaatc atctggggca tttcctcctc 240

tcgcgcctgt tgcttgagga 260

<210> 41  
 <211> 278  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <400> 41

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 cgaacaaaaa gctctgtgct gtgagggccg aaacagtggc tacagcctct ccagcagtta 120  
 ccaagtctac accagaaggg aagaanacat tgaggaaggg cagtgttggtg ataactgggg 180  
 cttcatctgg actaggcctg gccactgcta aggctttggc tgagacggga aaatggcatg 240  
 taataatggc ctgcagggat tacctcaaag ctgcaaga 278

<210> 42  
 <211> 248  
 <212> DNA  
 <213> Glycine max  
 <400> 42

ctgtgctgtg agggccgaaa cagtggctac agcctctcca gcagttacca agtctacacc 60  
 agaaggggaac gaaaacattg aggaagggca gtgttggtgat aactggggct tcatctggac 120  
 taggcctggc cactgctaag gctttggctg agacgggaaa atggcatgta ataatggcct 180  
 gcagggatta cctcaaagct gcaagagctg caaatccgc tggcatggct aaggaaaact 240  
 acactgtc 248

<210> 43  
 <211> 280  
 <212> DNA  
 <213> Glycine max  
 <400> 43

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 ttcagctctt ctgcattgag gtgcaagagg gaattcgaaac aaaagctctg tgctgtgagg 120  
 gccgaaacag tggctacagc cttccagcag ttaccaagtc tacaccagaa gggaagaaaa 180  
 cattgaggaa gggcagtggt gtgataactg gggcttcac tggactaggc ctggccactg 240

ctaaggcttt ggctgagacg ggaaaatggc atgtaataat 280

<210> 44  
 <211> 269  
 <212> DNA  
 <213> Glycine max

<400> 44

aaagagtggg gtgtctctca aggactccac cttgttcggg ctttcatttt cagaacctat 60  
 caaagctaac ttcagctctt ctgcattgag gtgtaagagg gaattcgaac aaaagctctg 120  
 tgctgtgagg gccgaaacag tggctacagc ctctccagca gttaccaagt ctacaccaga 180  
 agggaagaaa acattgagga agggcagtgt tgtgataact ggggcttcat ctggactagg 240  
 cctggccact gctaaggctt tggctgaga 269

<210> 45  
 <211> 236  
 <212> DNA  
 <213> Glycine max

<400> 45

cgaaacagtg gctacagcct ctccagcagt taccaagtct acaccagaag ggaagcaaac 60  
 attgaggaag ggcagtgttg tgataactgg ggcttcatct ggactaggcc tggccactgc 120  
 taaggctttg gctgagacgg gaaaatggca tgtataatg gcctgcaggg attacctcaa 180  
 agctgcaaga gctgcaaaat ccgctggcat ggctaaggaa aactacacca tcatgc 236

<210> 46  
 <211> 211  
 <212> DNA  
 <213> Glycine max

<400> 46

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 ttacctcaaa gctgcaagag ctgcaaaatc cgctggcatg gctaaggaaa actacaccat 120  
 catgcacttg gaccttgctt cgctcgacag tgtccgcaa tttgttgata acttcagaag 180  
 atcggaaatg ccgttagatg tgctggtttg c 211



<210> 47  
 <211> 276  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 47  
  
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 cggttcttaa agagggaaag agtgggtgtgt ctctcaagga ctccaccttg ttcgggtcttt 120  
 cattttcaga acctatcaaa gctaacttca gctcttctgc attgaggtgc aagaggggaat 180  
 tcgancaaaa gctctgtgct gtgaggggccg aaacagtggc tacagcctct ccagcagtta 240  
 ccaagtctac accagaaggg aagnaaacat tgagga 276

<210> 48  
 <211> 269  
 <212> DNA  
 <213> Glycine max  
  
 <400> 48  
  
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 aggactccac cttgttcggg ctttcatttt cagaacctat caaagctaac ttcagctctt 120  
 ctgcattgag gtgcaagagg gaattcgaac aaaagctctg tgctgtgagg gccgaaacag 180  
 tggctacagc ctctccagca gttaccaagt ctacaccaga agggaagaaa acattgagga 240  
 agggcagtggt tgtgataact ggggcttca 269

<210> 49  
 <211> 279  
 <212> DNA  
 <213> Glycine max  
  
 <400> 49  
  
 tagtcaaaat ctagtctcat acttttggtc ttcttcttga aatggctctc caggctgctt 60  
 ctcttggtcc tgcttctttc tcggttctta aagagggaaa gagtgggtgtg tctctcaagg 120  
 attccacctt gttcgggtctt tcattttcag aacctatcaa agctaacttc agctcttctg 180  
 cattgaggtg caagagggaa ttccaacaaa agctctgtgc tgtgagggcc gaaacagtgg 240  
 ctacagcttc tccagcagtt accaagtcta caccagaag 279

<210> 50  
 <211> 257  
 <212> DNA  
 <213> Glycine max  
  
 <400> 50  
  
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 ggactccacc ttgttcgggc ttccattttc agaacctatc aaagctaact tcagctcttc 120  
 tgcattgagg ttcaagaggg aattcgaaca aaagctctgt gctgtgaggg ccgaaacagt 180  
 ggctacagcc tctccagcag ttaccaagtc tacaccagaa gggaagataa cattgaggaa 240  
 gggcagtggt gtgataa 257

<210> 51  
 <211> 243  
 <212> DNA  
 <213> Glycine max  
  
 <400> 51  
  
 ggctgcttct cttgttcctg cttctttctc gggtctttaa gagggaaaga gtggtgtgtc 60  
 tctcaaggac tccaccttgt tcgggtcttc attttcagaa cctatcaaag ctaacttcag 120  
 ctcttctgca ttgaggtgca agaggggaatt cgaacaaaag ctctgtgctg tgagggccga 180  
 aacagtggct acagcctctc cagcagttac caagtctaca ccagaaggga agaaaacatt 240  
 gag 243

<210> 52  
 <211> 277  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 52  
  
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 ccaggtgct tctcttggtc ctgcttcttt ctcggttctt aaagaggga agagtgggtg 120  
 gtctctcaag gactccacct tggttcgggtc ttccattttc gaacctatca aagctaactt 180  
 cagctcttct gcattgaggt ncaagaggga attcgaacaa aagctctntg ctgtgagggc 240  
 cgaaacagtg gctacagcct ctccagcagt taccaag 277

<210> 53  
 <211> 271  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 53

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 gggttcttaaa gagggaaaga gtggtgtgtc tctcaaggac tccaccttgt tcggtctttc 120  
 attttcagaa cctatcaaag ctaacttcag ctcttctgca ttgagggttaa gagggaattc 180  
 gaacaaaagc tcngtgctgt gagggccgaa acagtggcta cagcctctcc agcagttacc 240  
 aagtctacac cagaaggcaa nnaacattga g 271

<210> 54  
 <211> 269  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 54

cnaatttgta aaactcaaaa tctagtttca tacttttttt cttcttcttg aaatggctct 60  
 ccaggctgct tctcttggtc ctgcttcttt ctcggttctt aaagagggaa agagtgggtg 120  
 gtctctcaag gactccacct tgttcggtct ttcattttca gaacctatca aagctaactt 180  
 cagctcttct gcattgaggt ccaagagggga attcgaacaa aagctctgtg ctgtgagggc 240  
 cgaaacagtg gctanagcct ctccagcag 269

<210> 55  
 <211> 282  
 <212> DNA  
 <213> Glycine max

<400> 55

tcaaaatcta gtttcatact tttcatcttc ttcttgaaat ggctctccag gctgcttctc 60  
 ttgttctga ttctttctcg gttcttaaag acggtgagat gtggtgtgtc tctcaaggac 120  
 tccacctagt tcggtctggc attttcagaa cctatcaaag ctaacttaag ctcttctgca 180  
 ttgagggtgca agagggattc cgcacaaaag ctctgtgctg tgagtgccga gacagtggct 240

acagcgtctg cagcagttac caagtctaca cgagaagggg ag 282

<210> 56  
 <211> 263  
 <212> DNA  
 <213> Glycine max

<400> 56

acttctcttg ttctgtcttc tttctcggtt cttaaagagg gacagagtgg tgtgtctctc 60  
 aaggactccg cttgttcggt ctttcatttt cagaacctat caaagctaac ttcagctctt 120  
 ctgcattgag gtgcaagagg gaattcgaac aatcgctctg tgctgtgagg gccgaaacag 180  
 tggttacagc ctctccagca gttaccaagt ctacaccaga tgggaagaaa acattgagtg 240  
 aaggagtgtg gtgaaactgg ggc 263

<210> 57  
 <211> 313  
 <212> DNA  
 <213> Glycine max

<400> 57

gaaatggctc tccaggctgc ttctcttggt cctgcttctt tctcggttct taaagagggg 60  
 aagagtgggtg tgtctctcaa ggactccacc ttgttcgggtc tttcattttc agaacctatc 120  
 aaagctaact tcagctcttc tgcattgagg tgcaagaggg aattcgaaca aaagctctgt 180  
 gctgtgaggg ccgaaacagt ggctacagcc tctccagcag ttaccaagtc tacaccagaa 240  
 ggcaagaaaa cattgaggaa gggcagtgtt gtgataactg gggcttcac tggacgagggc 300  
 ctggccactg cta 313

<210> 58  
 <211> 266  
 <212> DNA  
 <213> Glycine max

<400> 58

ccgtgataac acactaacac caccatttca tcaactttac ttgacaacaa tattgtaaaa 60  
 ctcaaaatct agtttcatac ttttgttctt cttcttgaaa tggctctcca ggctgcttct 120  
 cttgttcttg cttctttctc ggttcttaaa gagggaaaga gtggtgtgtc tctcaaggac 180

tccaccttgt tcggtctttc attttcagaa cctatcaaag ctaacttcag ctcttctgca 240  
 ttgaggtgca agaggggaatt cgaaca 266

<210> 59  
 <211> 277  
 <212> DNA  
 <213> Glycine max

<400> 59  
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 tacttttttt cttcttcttg aaatggctct ccaggtctgt tctcttggtc ctgcttcttt 120  
 ctcggttctt aaagagggaa agagtgggtgt gtctctcaag gactccacct tgttcggtct 180  
 ttcattttca gaacctatca aagctaactt cagctcttct gcattgaggt gcaagagggga 240  
 attcgaacaa aagctctgtg ctgtgagggc cgaacaa 277

<210> 60  
 <211> 151  
 <212> DNA  
 <213> Glycine max

<400> 60  
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 tacggtcttt cattttcaga acctatcaaa gctaacttca gctcttctgc attgaggtgc 120  
 aagaggggaat tcgaacaaaa actctgtgct g 151

<210> 61  
 <211> 266  
 <212> DNA  
 <213> Glycine max

<400> 61  
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 tttttttact cttcttgaaa tggctctcca ggctgcttct cttgttcttg cttctttctc 120  
 gggttcttaaa gagggaaaga gtggtgtgtc tctcaaggac tccaccttgt tcggtctttc 180  
 attttcagaa cctatcaaag ctaacttcag ctcttctgca ttgaggtgca agaggggaatt 240  
 cgaacaaaag ctctgtgctg tgaggg 266

<210> 62  
 <211> 229  
 <212> DNA  
 <213> Glycine max

<400> 62

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 tcttcttctt gaaatggctc tccaggtgc ttctcttggt cctgcttctt tctcggttct 120  
 taaagagggga aagagtgggtg tgtctctcaa ggactccacc ttgttcgggc tttcattttc 180  
 agaacctatc aaagctaact tcagctcttc tgcattgagg tgcaagagg 229

<210> 63  
 <211> 268  
 <212> DNA  
 <213> Glycine max

<400> 63

cccgatgataa cacactaaca ccatcacttc atcaacttta cttgacaaca atattgtaaa 60  
 actcaaaatc tagtttcata cttttattcg tcttctttta atggctctcc aggctgcttc 120  
 tcttgttcct gcttctttct cggttcttaa atagggaaag agtggtgtgt ctctcaagga 180  
 ctccaccttg ttcgggtctt cattttcaga acctatcaaa gctaacttca gctcttctgc 240  
 attgaggttc aagaggggaat tcgaacaa 268

<210> 64  
 <211> 278  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 64

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 tcatactttt tttcttcttc ttgaaatggc tctccaggct gcttctcttg ttctgcttc 120  
 tttctcggtt cttaaagagg gaaagagtgg tgtgtctctc aaggactcca ccttggttcgg 180  
 tctttcattt tcagaacctc tcaaagctaa cttcagctct tctgcattga ggtntcaaga 240  
 gggaattcga acaaaagctc tgtgctgtga gggccgaa 278

<210> 65  
 <211> 275  
 <212> DNA  
 <213> Glycine max

<400> 65

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 taaagagggg aagagtgggtg tgtctctcaa ggactccacc ttgttcgggc tttcattttc 180  
 agaacctatc aaagctaact tcagctcttc tgcattgagg tttaagaggg aattcgaaca 240  
 aaagctctgt gctgtgaggg ccgaaacagt ggcta 275

<210> 66  
 <211> 344  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 66

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 ccaggctgct tctcttggtc ctgcttcttt ctcggttctt aaagagggaa agagtgggtg 120  
 gtttctcaag gactccacct tgttcgggtc ttcatattca gaacctttta tagctaactt 180  
 cagctcttct gcattgaggt gtaagagggg attcgaacaa aagctctgtg ctgtgagggc 240  
 cgaaacagtg gctacagcct ctccagcagt taccaagtct acaccagaag ggacgtcaac 300  
 attgaggaag ggcagtgttg tgataactgg ggcttcatct ggac 344

<210> 67  
 <211> 255  
 <212> DNA  
 <213> Glycine max

<400> 67

cgccgtgata acacactaac accaccactt catcaacttt acttgacaac aatattgtaa 60  
 aactcaaaat ctagtttcat actttttttc ttcttcttga aatggctctc caggctgctt 120  
 ctcttggtcc tgattcttac tcggttctta aagagggaaa gagtgggtgtg tctctcaagg 180  
 actccacctt gttcgggtctt tcattttcag aacctatcaa agctaacttc agctcttctg 240

cattgaggtg caaga 255

<210> 68  
 <211> 249  
 <212> DNA  
 <213> Glycine max

<400> 68

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 aatattgtaa aactcaaaat ctagtttcat actttttttc ttcttcttga aatggctctc 120  
 caggtgctt ctcttggtcc tgcttctttc tcggttctta aagagggaaa gagtgggtgtg 180  
 tctctcaagg actccacctt gttcgggtctt tcattttcag aacctatcaa agctaacttc 240  
 agctcttct 249

<210> 69  
 <211> 249  
 <212> DNA  
 <213> Glycine max

<400> 69

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 tagtttcata ctttttttct tcttcttgaa atggctctcc aggtgcttc tcttggtcct 120  
 gcttctttct cggttcttaa agagggaaag agtgggtgtgt ctctcaagga ctccaccttg 180  
 ttcgggtcttt cattttcaga acctatcaaa gctaacttca gctcttctgc attgaggttc 240  
 aagagggaa 249

<210> 70  
 <211> 294  
 <212> DNA  
 <213> Glycine max

<400> 70

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 ccaggtgct tctcttggtc ctgcttcttt ctcggttctt aaagagggaa agagtgggtgt 120  
 gtctctcaag gactccacct tgttcgggtct ttcattttca gaacctatca aagctaactt 180  
 cagctcttct gcattgaggt gcaagagggg attcgaacaa aagctctgtg ctgtgagggc 240



cgaaacagtg gctacagcct ctccagcagt taccaagtct acaccagaag ggaa 294

<210> 71  
 <211> 270  
 <212> DNA  
 <213> Glycine max

<400> 71

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 gtgtctctca aggactccac cttgttcggg ctttcatttt cagaacctat caaagctaac 120  
 ttcagctctt ctgcattgag gtgcaagagg gaattcgaac aaaagctctg tgctgtgagg 180  
 gccgaaacag tggctacagc ctctccagca gttaccaagt ctacaccaga aggcaagata 240  
 acattgagaa gggcagtggt gtgataactg 270

<210> 72  
 <211> 254  
 <212> DNA  
 <213> Glycine max

<400> 72

attaccgccg tgataacaca ctaacaccac cacttcatca actttacttg acaacaatat 60  
 tgtaaaactc aaaatctagt ttcatacttt ttttcttctt cttgaaaggc tctccaggct 120  
 gcttctcttg ttcttgcttc tttctcggtt cttaaagagg gaaagagtgg tgtgtctctc 180  
 aaggactcca ccttggttcgg tctttcattt tcagaacctc agctaacttc agctcttctg 240  
 cattgaggtg caag 254

<210> 73  
 <211> 100  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 73

ccctgcaggc cattattaca aagctgcaag agctgcaaaa tccgctggca tggctaagga 60  
 aaactacacc atcatgcanc ttggaccttg cctcgcctga 100

<210> 74

<211> 262  
 <212> DNA  
 <213> Glycine max  
 <400> 74  
 cgccgtgata acacactaac accaccactt catcaacttt acttgacaac aatattgtaa 60  
 aactcaaaat ctagtttcat actttttttc ttctttctga aatggctctc caggctgctt 120  
 ctcttgttcc gcttctttct cggttcttaa agagggaaag agtggtgtgt ctctcaagga 180  
 ctccaccttg ttcgggtcttt cattttcaga acctatcaaa gctaacttca tcttctgcat 240  
 tgaggtgcaa gaggggaattc ga 262

<210> 75  
 <211> 184  
 <212> DNA  
 <213> Glycine max  
 <400> 75  
 gtgataacac actaacacca ccacttcac c aactttactt gacaacaata ttgtaaaact 60  
 caaaatctag ttccatactt tttttcttct tcttgaaatg gctctccagg ctgcttctct 120  
 tgttctgtgt tctttctcgg ttcttaaaga gggaaagagt ggtgtgtctc tcaaggactc 180  
 cacc 184

<210> 76  
 <211> 229  
 <212> DNA  
 <213> Glycine max  
 <400> 76  
 ggaaccacac atttttcatt accgccgtga taacacacta acaccaccac ttcatcaact 60  
 ttacttgaca acaatattgt aaaactcaaa atctgggttc atactttttt tcttcttctt 120  
 gaaatggctc tccaggctgc ttctcttggt cctgcttctt tctcggttct taaagagggga 180  
 aagagtgggtg tgtctctcaa ggactccacc ttgttcgggc tttcatttt 229

<210> 77  
 <211> 270  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
<400> 77

attaccgctcg tgataacaca ctaacaccac cacttcatca actttacttg acaacaatat 60  
tgtaaaactc aaaatctagt nnnnnnnnnn nnnnnnnnnn nnnngaaatgg ctctccaggc 120  
tgctttctctt gttcctgctt ctttctcggt tcttaaagag ggaaagagtg gtgtgtctct 180  
caaggactcc accttggtcg gtctttcatt ttcagaacct atcanagcta acttcagctc 240  
ttctgcatga gngntagang gantcgaaca 270

<210> 78  
<211> 267  
<212> DNA  
<213> Glycine max

<400> 78  
ggctgcgaga agacgacaga aggggaacca cacatcttctc attaccgccc tgataacaca 60  
ctaacaccac cacttcatca actttacttg acaacaatat tgtaaaactc aaaatctagt 120  
ttcatacttt ttttctctctt cttgaaatgg ctctccaggc tgctttctctt gttcctgctt 180  
ctttctcggt tcttaaagag ggaaagagtg gtgtgtctct caaggactcc accttggtcg 240  
gtctttcatt ttcagaacct atcaaag 267

<210> 79  
<211> 158  
<212> DNA  
<213> Glycine max

<400> 79  
tcaaaatcta gtttcatact tttttcttctc ttcttgaaat ggctctccag gctgcttctc 60  
ttgttctctgc ttctttctcg gttcttaaag agggaaagag tgggtgtgtct ctcaaggact 120  
ccaccttggt cggtctttca ttttcagaac ctatcaaa 158

<210> 80  
<211> 278  
<212> DNA  
<213> Glycine max

<400> 80  
cacactaaca ccaccacttc atcaacttta cttgacaaca atattgtaaa actcaaaatc 60

tagtttcata ctttttttct tcttcttgaa atggctctcc aggctgcttc tcttgttcct 120  
gcttctttct cggttcttaa gagggaaaga gtggtgtgtc tctcaaggac tccacctgt 180  
tcggtctttc attttcagaa cctatcaaag ctaacttcag ctcttctgca ttgaggtgca 240  
agaggggaatt cgaacaaaag ctctgtgctg tgagggcc 278

<210> 81  
<211> 285  
<212> DNA  
<213> Glycine max

<400> 81

cacggctgcg aaagacgaca gaaggggacc acacattttt cattaccgcc gtgataacac 60  
actaacacca ccagctcatc aactttactt gacaacaata ttgtaaaact caaaatctag 120  
tttcatactt tttttcttct tcttgaaatg gctctccagg ctgcttctct tgttctgct 180  
tctttctcgg ttcttaaaga gggaaagagt ggtgtgtctc tcaaggactc caccttggtc 240  
ggtctttcat tttcagaact atcaaagcta attcagctct tctgc 285

<210> 82  
<211> 269  
<212> DNA  
<213> Glycine max

<400> 82

ggttaccatt atttctttat aactatacta ctcatcagct gcatgggtatt ttgctttca 60  
ttgttggtgt tgttggtgat ccacttcac aactttactt gacaacaaga ttgtaaaact 120  
caaaatctag tttcatactt tttttcttct tcttgaaatg gctctccagg ctgcttctct 180  
tgttctgct tctttctcgg ttcttaaagc gggcaagagt ggtgtgtctc tcaaggactc 240  
caccttggtc ggtctttcat tttcagaac 269

<210> 83  
<211> 260  
<212> DNA  
<213> Glycine max

<400> 83

acggcgagaa gacgacagaa ggggaaccac acatttttca ttaccgccgt gataacacac 60

taacaccacc acttcatcaa ctttacttga caacaatatt gtaaaactca aaatctagtt 120  
tcatactttt tttcttcttc ttgaaatggc tctccagget gcttctcttg ttcttgcttc 180  
tttctcgggt cttaaaagagg gaaagagtgg tgtgtctctc aaggactcca ccttggtcgg 240  
tctttcattt tcagaaccta 260

<210> 84  
<211> 108  
<212> DNA  
<213> Glycine max

<400> 84

ttcagctctg ctgcattgag gtgccagagg gaattcgaac aaaagctctg tgctgtgagg 60  
gccgaaacag tggctacagc ctctccagca gttaccaagt ctacacca 108

<210> 85  
<211> 258  
<212> DNA  
<213> Glycine max

<400> 85

caatattgta aaactcaaaa tctagtttca tacttttttt cttcttcttg aaatggctct 60  
ccaggctgcc tctcttggtc ctgcttcttt ctcggttctt aaagagggaa agagtgggtg 120  
gtctctcaag gactcacctt gttcgggtctt tcattttcag aacctatcaa agctaacttc 180  
agctcttctg cattgaggtg taagagggaa ttcgaacaaa agctctgtgc tgtgagggcc 240  
gaaacagtgg ctacagcc 258

<210> 86  
<211> 250  
<212> DNA  
<213> Glycine max

<400> 86

caatattgta aaactcaaaa tctagtttca tacttttttt cttcttcttg aaatggctct 60  
ccaggctgct tctcttggtc ctgcttcttt ctcggttctt aaagagggaa agagtgggtg 120  
gtctctcaag gctccacctt gttcgggtctt tcattttcag aacctatcaa agctaacttc 180  
agctcttctg cattgaggtg caagagggaa ttcgaacaaa agctctgtgc tgtgagggca 240

aacagtggct

250

<210> 87  
<211> 260  
<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<400> 87

caaaaatttg gccctttgag gggttcagtca gtggcaacaa caactccagg agtcaccaag 60  
gcttcaccag aaggcaagaa nactttgagg aaaggcagtg ttattatcac tggggcttcc 120  
tctggattag gcctggccac tgctaaggct ttggctgaga caggaaagtg gcatgtgata 180  
atggcctgcc gggatttccct caaagccgaa anngctgcga aatctgccgg cattgctaag 240  
gaaaactaca ctattatgca 260

<210> 88  
<211> 281  
<212> DNA  
<213> Glycine max  
  
<400> 88

caacaaaaaa ttggcccttt gaggggttcag tcagtggcaa caaccactcc aggagtcacc 60  
aaggcttcac cagaaggcaa gaaaactttg aggaaaggca gtgttattgt cactgggctt 120  
cctctggatt aggcctggcc acggccaagg ctttggctga gacaggaaag tggcatgtga 180  
ttatgcactg cagggtatttc ctcaaagctg agagggctgc aaaatctgct ggcattgcta 240  
aggaaattgt gtctcttgat agtgtgaggc aatttgtgga t 281

<210> 89  
<211> 385  
<212> DNA  
<213> Glycine max  
  
<400> 89

ctttgaactt agtgttgggc caaataattt gggcgttttc gtctctctcg cctgttgctt 60  
gaggacttgg aaaaatccga ttacccttca aagcgcttga tcatcgttgg ttcaatatca 120  
cggaacacac acacattggc tggtaatgta cctcccaagg ctaaccttgg tgacttgagg 180

ggacttcaag gtggtttgaa tgggcttaac agctcagcca tgattgatgg tggagacttc 240  
 gatggtgccca aggcgtacaa ggacagcaaa gtctgcaata tgctcacaat gcaagaattc 300  
 cacagacgat ttcatgagga aaactgaatc acatttgctt tcctttaacc cgggtgcatt 360  
 gccacaacag gcctgttcag agagc 385

<210> 90  
 <211> 241  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <400> 90

gataacttca gaagatcgga aatgccgtta gatgtgctgg tttgcaatgc tgctgtttac 60  
 ttgccaaactg ctaaggaacc taccttcaact gctgagggct ttgaacttag tgttgggaca 120  
 aatcatctgg ggcatttcct cctctcgcgc ctggtgcttg aggacttgga aaaatccgat 180  
 tacccttcaa agcgcttgat catcgttggt tcaataacag ggnacacaaa cacattggct 240  
 g 241

<210> 91  
 <211> 267  
 <212> DNA  
 <213> Glycine max  
 <400> 91

ctcctctcgc gcctgttgct tgaggacttg gaaaaatccg attacccttc aaagcgcttg 60  
 atcatcgttg gttcaataac agggaaacaca aacacattgg ctggtaatgt acctcccaag 120  
 gctaaccttg gtgacttgag gggacttcag ggtggtttga atgggctaaa cagctcagcc 180  
 atgattgatg gtggagagat cgatggtgcc aaggcgtaca aggacagcaa agtctgcaat 240  
 atgctcacia tgcaagaatt ccacaga 267

<210> 92  
 <211> 256  
 <212> DNA  
 <213> Glycine max  
 <400> 92

ttagatgtgc tggtttgcaa tgctgctgtt tacttgccaa ctgctaagga acctaccttc 60

actgctgagg gctttgaact tagtggtggg acaaatcatc tggggcattt cctcctctcg 120  
 cgctgttgct ttgaggactt ggaaaaatcc gattaccctt caaagegctt gatcatcggt 180  
 gggttcaataa cagggaacac aaacacattg gctggtaatg tacctcccaa ggctaaccct 240  
 ggtgacttga ggggat 256

<210> 93  
 <211> 260  
 <212> DNA  
 <213> Glycine max

<400> 93

cttcactgct gagggctttg aacttagtgt tgggacaaat catctggggc atttcctcct 60  
 ctgcgccttg ttgcttgagg acttgaaaa atccgattac cttcaaagc gcttgatcat 120  
 cgttggttca ataacaggga acacaaacac attggctggt aatgtacctc ccaaggctaa 180  
 ccttggtgac ttgaggggac ttcaggggtgg tttgaatggg ctaaacagct cagccatgat 240  
 tgatggtgga gattcgatgg 260

<210> 94  
 <211> 274  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 94

cntaccttca ctgctgaggg ctttgancct antgttnng acaaattcat ctggggcatt 60  
 tcctcctctc gcgcctgttg cttgaggact tggaaaaatc cgattaccct tcaaagcgct 120  
 tgatcatcgt tgggttcaata acagggaaca caaacacatt ggctggtaat gtactcccaa 180  
 ggctaaccctt ggtgacttga ggggacttca ggggtggttg aatgggctaa acagctcagc 240  
 catgattgat ggtggagatt cgatggtgcc aagc 274

<210> 95  
 <211> 284  
 <212> DNA  
 <213> Glycine max

<400> 95



cagtattgtg aaatgttgaa agcagacgag tggcctgttt gtgcatttat ttctcaagat 60  
 tgctgtccag caaatccatc ggaagaagcg cacaatgttc aaacatcgta tgaagtgtgg 120  
 gagaagacat tagagatgat tggccttccc tcagatgctg tggaaaggct tttagatggg 180  
 gaagaagtta aatgccgtta tggacaagaa cagtaatcta atatacaata tctcccttaa 240  
 tctgtaaggg cacttccatt atttatagct agtaatgagc attt 284

<210> 96  
 <211> 265  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <400> 96

aagagagaga tggcaacgac gacgtcgtct tcaagcgagg nagcaccgaa cactaagaag 60  
 aacaagaagg agcgtttagg ttggntagaa tggttaagag gttgggttcta tttgggtctac 120  
 gaaatgctct ttcagcgcac catggcgagc cacttgcaca accctatgcc tctccctcct 180  
 gtaaacgacc tcacttgcac tgtcacccgc tccaccagcg gcattggcct cgaaattgct 240  
 aggcaattgg ctacgtcagg ggccc 265

<210> 97  
 <211> 135  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <400> 97

ggaaagaaca atggttggca gtaggtatac tacaagtaac tcctcaatcc catgtaagan 60  
 aacaaaaggc agcttcttta atgccagtat tgcacaacac ctacagactag tacaanaaaa 120  
 aacaaagaaa agggg 135

<210> 98  
 <211> 129  
 <212> DNA  
 <213> Glycine max  
 <400> 98

ccatttgcca ttggatggcg ctgctagaat ttgtactggt gccaccagtt tcctctccct 60

ttatgtccca gatgagtacc caagtggcaa aaattagatt agactaatat atatatattg 120  
 ttttatcag 129

<210> 99  
 <211> 270  
 <212> DNA  
 <213> Glycine max

<400> 99

gtccaggccc ggtggcggcg gtggcattag cagggtcctt caagacggtg ccgtttgga 60  
 aaaaggctgg ggttaatgcc cctggtgttt acggtgtcat gccacctgac gcatatcgtg 120  
 ctgccaaagg tgttcttacc gatcaaaaac ctgggtcctgt gcctttcttc gctgctggaa 180  
 tcagctccgt tttacacca aagaaccgt ttgccctac cctacatttc aactatcgt 240  
 attttgaaac cgatgctcct aaagatgctc 270

<210> 100  
 <211> 264  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 100

aattgcgaag gggacgatat gttgaattca atttggata tgatagnggt acaacatttg 60  
 gnctgaaaac tggagggaga atagagagta tacttgtttc tctccactg actgctcgg 120  
 gggaatacga tcataaaccg gaagaaggaa gcgaagaatg gaaactcttg gacgcatgca 180  
 tcaaccccaa ggaatggatc taattcatca gttgaccccc caatttgtca gctttttaat 240  
 ttaataataa gggagcttgt ttct 264

<210> 101  
 <211> 249  
 <212> DNA  
 <213> Glycine max

<400> 101

ctcccttatt attaaattaa aaagctgaca aattggggg tcaactgatg aattagatcc 60  
 attccttggg gttgatgcat gcgtccaaga gtttccattc ttcgcttct tcttccggt 120  
 tatgatcgta ttcccaccga gcagtcagt ggagagaaac aagtatactc tctattctcc 180

ctccagtttt cagtccaaat gttgtacccc tatcatatac caaattgaat tcaacatatc 240  
gtcccccttc 249

<210> 102  
<211> 262  
<212> DNA  
<213> Glycine max

<400> 102

ggagatgctc ctttcctttg ctactgaatg tgcaaattct gttattcctg cttatttacc 60  
tatcatagag aaaaggaagg atttgccctt caatgatcat cagaaagcat ggcaacaatt 120  
gcgaagggga cgatatgttg aattcaattt ggtatatgat aggggtacaa catttggact 180  
gaaaactgga gggagaatag agagtatact tgtttctctc ccactgactg ctcggtggga 240  
atacgatcaa aaccggaaga ag 262

<210> 103  
<211> 240  
<212> DNA  
<213> Glycine max

<400> 103

agatgctcct ttcctttgct actgaatgtg caaattctgt tattcctgct tatttaccta 60  
tcatagagaa aaggaaggat ttgcccttca atgatcatca gaaagcatgg caacaattgc 120  
gaaggggacg atatgttgaa ttcaatttgg tatatgatag ggggtacaaca tttggactga 180  
aaactggagg gagaatagag agtatacttg tttctctccc actgactgct cgggtgggaat 240

<210> 104  
<211> 249  
<212> DNA  
<213> Glycine max

<400> 104

acggctgcga gaagacgaca gaaggggatg atcttaatga ctatgatcag gagatgctcc 60  
tttcctttgc tactgaatgt gcaaattctg ttattcctgc ttatttacct atcatagaga 120  
aaaggaagga tttgcccttc aatgatcatc agaaagcatg gcaacatttg cgaacgggga 180  
cgatatgttg aattcaattt ggtatatgat aggggtacaa catttggact gaaaactgga 240

gggagaata 249

<210> 105  
 <211> 250  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <400> 105

aattgcgnag gggangatat gntgaatnca attnggtana tgntannggt acaacanttg 60  
 gactgaatnc tggaggggag aatagagagt atacttgttt ctctcncact gactgctcgg 120  
 tgggaatacgc atcatnaacc ggnagangga agcgaagact ggnaactctt ggncgcatgc 180  
 atnaacccca aggaatggat ctaattcatc agttgacccc ccaatttgtc agctttttaa 240  
 tttaataata 250

<210> 106  
 <211> 268  
 <212> DNA  
 <213> Glycine max  
 <400> 106

ggatttgccc ttcaatgatc atcagaaagc atggcaacaa ttgcgaaggg gacgatatgt 60  
 tgaattcaat ttggtatatg ataggggtac aacatttgga ctgaaaactg gagggagaat 120  
 agagagtata cttgtttctc tcccactgac tgctcgggtg gaatacgatc ataaaccgga 180  
 agaaggaagc gaagaatgga aactcttgga cgcgatgcac aacccaagg aatggatcta 240  
 attcatcagt tgacccccca atttgtca 268

<210> 107  
 <211> 268  
 <212> DNA  
 <213> Glycine max  
 <400> 107

acggctgcga gaagacgaca gaaggggaga aaaggaagga ttgccccttc aatgatcatc 60  
 agaaagcatg gcaacaattg cgaaggggac gatatgttga attcaatttg gtatatgata 120  
 ggggtacaac atttggactg aaaactggag ggagaataga gagtatactt gtttctctcc 180

cactgactgc tcggtgggaa tacgatcata aaccggaaga aggaagcgaa gaatggaaac 240  
tcttggacgc atgcatcaac cccaagga 268

<210> 108  
<211> 321  
<212> DNA  
<213> Glycine max

<400> 108  
ggaagacctt atcatctccg aatttcattt tcagaagcct ctttgggaat caaatccgaa 60  
gcatgatgca ttgtgcgagc attgtctcgg ctccgtccta cgcgttcctt tttctctctg 120  
gctccgcttc cactactcca actgcatctt cgctcactaa gcgcagttgg aagccacctc 180  
cgagcatggc aaaaggccca gtcagagcca ccgtttctat agagaaagag accccggagg 240  
ccaatcgctc cgaaacgttt ctcataggag tggacgaggc ccagtcttcc acttcgggtc 300  
gggcccgcct cgagaagatg a 321

<210> 109  
<211> 282  
<212> DNA  
<213> Glycine max

<400> 109  
cacatccgaa gcatgatgca ttgtgcgagc attgtctcgg ctccgtccta cgcgttcctt 60  
tttctctctg gctccgcttc cactactcca actgcatctt cgctcactaa gcgcagttgg 120  
aagccacctc cgagcatggc aaaaggccca gtcagagcca ccgtttctat agagaaagag 180  
accccgagg ccaatcgctc cgaaacgttt ctcataggag tggacgaggc ccagtcttcc 240  
acttcgggtc gggcccgcct tcgagaagat gataagggac gc 282

<210> 110  
<211> 260  
<212> DNA  
<213> Glycine max

<400> 110  
ccttatcatc tccgaatttc attttcagaa gcctcttttg gaatcaaata cgaagcatga 60  
tgcattgtgc gagcattgtc tcggctccgt cctacgcgtt cccttttctc tctggctccg 120

cttccactac tccaactgcg atctcgctca ctaagcgcag ttggaagcca cctccgagca 180  
 tggcaaaagg cccagtcaga gccaccgttt ctatagagaa agagaccccg gaggccaatc 240  
 gtccccgaaac gtttctcaga 260

<210> 111  
 <211> 269  
 <212> DNA  
 <213> Glycine max

<400> 111

ctctttggga atcaaatccg aagcatgatg cattgtgcga gcattgtctc ggctccgtcc 60  
 tacgcgttcc cttttctctc tggtccgct tccactactc caactgcgat ctcgctcact 120  
 aagcgcagtt ggaagccacc tccgagcatg gcaaaaggcc cagtcagagc cacgtttcta 180  
 tagagaaaga taccgccgag gccaatcgtc ccgaaacggt tctcagagga gtggacgagg 240  
 cccagtcttc cacttcggtt cgggcccg 269

<210> 112  
 <211> 260  
 <212> DNA  
 <213> Glycine max

<400> 112

tgtgcgagca ttgtctcggc tccgtcctac gcgttccctt ttctctctgg ctccgcttcc 60  
 actactccaa ctgcgctctc gctcactaag cgcagttgga agccacctcc gagcatggca 120  
 aaaggcccag tcagagccac cgtttctata gagaagaga ccccgagggc caatcgctcc 180  
 gaaacgtttc tcagaggagt ggacgaggcc cagtcttcca cttegggttc ggccccgttc 240  
 gagaagatga taaggagggc 260

<210> 113  
 <211> 279  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 113

gaagacttta tcatttccga atttcntttt cagangcctc tttgggaatc anntccnnng 60  
 catgatgcat tgtngcgagc nttgtctacg gctccgtcct acgcgttccc ttttcgctct 120

ggctccgctt ccactactcc aactgcgntc tcgctcacta agcgcagttg gaagccacct 180  
 ccgagnatgg caaaaggccc agtcagagcc accgtttcta tagagaaaga gaccccggag 240  
 gccaatcgtc ccgaaacggt tctcagagga gtggacgag 279

<210> 114  
 <211> 247  
 <212> DNA  
 <213> Glycine max

<400> 114

ctccgaattt cattttcaga agcctctttg ggaatcaa at tggagtgtct gcaatccact 60  
 ccgaagcatg atgcattgtg cgagcattgt ctcggtccg tcctacgcgt tcccttttcg 120  
 ctctggctcc gctctccact actccaactg cgatctcgct ctctaagcgc agttggaagc 180  
 cacctccgag catggcaaaa gccagtcag agccaccgtt tctatagaga aagagacccc 240  
 ggaggcc 247

<210> 115  
 <211> 253  
 <212> DNA  
 <213> Glycine max

<400> 115

cagaagcctc tttgggaatc aaatccgaag catgatgat tgtgagca ttgtctcggc 60  
 tccgtectac gcgttccctt ttctctctgg ctccgttcc actactccaa ctgccctctc 120  
 gctcactacg cgcagttgga agccacctcc gagcatggca aaaggcccag tcagagccac 180  
 cgtttctata gagatagaga ccccgaggc caatcgctcc gaaacgtttc tcagaggagt 240  
 ggacgaggcc cag 253

<210> 116  
 <211> 268  
 <212> DNA  
 <213> Glycine max

<400> 116

tcgagcgcgt tcccttttct ctctggctcc gcttccacta ctccacatgc gctctcgctc 60  
 actaagcgca gttggaagcc acctccgagc atggcaaaag gccagtcag agccaccgtt 120

tctatagaga aagagacccc ggaggccaat cgtcccgaaa cgtttctcag aggagtcgtc 180  
gaggcccagt cttccacttc ggttcggggc cgcttcgaga agatgataag ggaggcccag 240  
gacaccgtgt gcagtgcctt cgaggccg 268

<210> 117  
<211> 238  
<212> DNA  
<213> Glycine max

<400> 117

atccgaagca tgatgcattg tgcgagcatt gtctcggctc cgtcctacgc gttccctttt 60  
ctctctggct ccgcttccac tactccaact gcgatctcgc tactaagcg cagttggaag 120  
ccacctccga gcatggcaaa aggcccagtc agagccaccg tttctataga gaaagacacc 180  
ccggaggcca atggtcccga aacgtttctc agaggagtgg acgaggccca ttcttcca 238

<210> 118  
<211> 250  
<212> DNA  
<213> Glycine max

<400> 118

tccgaagcat gatgcattgt gcgagcattg tctcggctcc gtcctacgcg ttcccttttc 60  
tctctggctc cgcttccact actccaactg ccctctcgct cactaagcgc agttggaagc 120  
cacctccgag catggcaaaa ggaccagtca gagccaccgt ttctacagag acagagaccc 180  
cggaggccaa tcgtcccga acgtttctca gaggagtgga cgaggccaag tcttccactt 240  
cggttcgggc 250

<210> 119  
<211> 267  
<212> DNA  
<213> Glycine max

<400> 119

actcgagccg attcggctcg agctcttttg gaatcaaata cgaaacatga tgcattgtgc 60  
gaccattgtc tcggctccgt cactacgcgt tcccttttct ctctggctcc gcttccacta 120  
ctccaactac tactctcgct cactaagcgc agttggaagc cacctccgag catggcaaaa 180



ggcccagtcagagccaccgt ttctatagag acagacaccc cggaagccaa ttctcccgaa 240  
acgttttctca gacgactgga cgaggcc 267

<210> 120  
<211> 119  
<212> DNA  
<213> Glycine max

<400> 120

tcatttttcag aagcctcttt gggaatcaaa tccgaagcat gatgcattac gcgagcattg 60  
tctcggtctc gtctacgcg ttcccttttc tctctggctc cgcttcaca caacatacg 119

<210> 121  
<211> 117  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<400> 121

cgaatttcat ttccagaagc ctctttggga atcaaaccg aagcatgatg cattgngcga 60  
gcattgtctc ggctccgtcc tacgcgttcc cttttctctc tggctccgct tccacaa 117

<210> 122  
<211> 94  
<212> DNA  
<213> Glycine max

<400> 122

caaaccgaa gcatgatgca ttgtgogagc attgtctcgg ctccgtccta cgcgttccct 60  
tttctctctg gctccgcttc cacacaacat acga 94

<210> 123  
<211> 81  
<212> DNA  
<213> Glycine max

<400> 123

cattttcaga agcctctttg ggaatcaaat ccgaagcatg atgcattgtg cgagcattgt 60  
ctcggtccg tctacgcgt t 81

<210> 124  
 <211> 246  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 124

cgagacccgg aggccaatcg tcncgaaacg tttctcagag gagtggacga gtgccagtct 60  
 tccacttcgg ttccgggcntc gttcgagaag atgataaagg gaggcccagg acaccgtgtg 120  
 cagtgccctc gaggccgctg atggtggggc ccagttcaag gaggacgttt ggtccaggcc 180  
 cgggtggcggc ggtggcatta gcagggtcct tcaagacggt gccgtttggg agaaggctgg 240  
 ggttaa 246

<210> 125  
 <211> 261  
 <212> DNA  
 <213> Glycine max

<400> 125

gaaagagacc ccggaggcca atcgtcccga aacgtttctc agaggagtgg acgaggcca 60  
 gtcttccact tcggttcggg cctgcttcga gaagatgata agggaggccc aggacaccgt 120  
 gtgcagtgcc ctcgaggccg ctgatggtgg ggcccagttc atggaggacg tttggtccag 180  
 gcccggtggc ggccggtggc ttagcagggt ccttcaagac ggtgccgttt ggagagaaggc 240  
 tggggttaat gtctctgttg t 261

<210> 126  
 <211> 239  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 126

accaatcgtc ccgaaacgtt tctcagagga gtggacgagg ccagtccttc cacttcgggt 60  
 cgggcccgtc tcgagaagat gataaggag gccaggaca ccgtgtgcag tgccctcgag 120  
 gccgctgatg gtggggccca gttcaaggag gacgtttggt ccaggcccgg tggcggcgg 180  
 ggcnnacga ggtccttcaa gacggtgccg tttgggagaa ggctgggggt aatgtctct 239

<210> 127  
 <211> 162  
 <212> DNA  
 <213> Glycine max

<400> 127

atcaagtgct tgttatgatg agtcagaatg ttagcttggt gtactagggtg gattgtaaat 60  
 cacgtatctt gctagagtca tccgcgtaaa gcgtgaaaat gcagaaaatt acaaattgtct 120  
 aggctgcgtc tgtagtatac ctactgccaa ccattgttct tt 162

<210> 128  
 <211> 114  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 128

atcaagtgct tgttcgatg ggtcagaatg ttagcttggt gtactagggtg gattgtaaat 60  
 cacgtatctt gctagagtnc tccgcgcgga gcgtgaanat gcagagaatt acaa 114

<210> 129  
 <211> 253  
 <212> DNA  
 <213> Glycine max

<400> 129

ggcgtctgcc aaaacaaaaa ggtcagactg ttggatcttt ccggaaggga cttaccatgt 60  
 tgcctgatgc aatttctgcc agactaggca acaaagtaaa gttatcttgg aagctttcaa 120  
 gtattagtaa actggatagt ggagagtaca gtttgacata tgaaacacca gaaggagtgg 180  
 tttctttgca gtgcaaaact gttgtcctga ccattccttc ctatgttgct agtacatgcc 240  
 tgcgtcctct gtc 253

<210> 130  
 <211> 298  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 130

gctgcagatg cactttcaaa gttttattac cctccagttg ctgcagtttc catatcctat 60  
 ccanaagaag ctattagatc agaatgcttg atagatgggtg agttgaaggg ggttgggtcaa 120  
 ttgcatccac gtagacaagg agtggaaaca ttaggaacta tatacagctc atcactattc 180  
 cccaaccgag caccacgacg gaagggttcta ctcttgaatt acattggagg agcaactaat 240  
 actggaattt tatcgaagac ggacagtga cttgtggaaa cagttgatcg agatttga 298

<210> 131  
 <211> 283  
 <212> DNA  
 <213> Glycine max

<400> 131

caattatata taatctcctg ctgactcgtc tttttctttg gaataatgat atactgtcaa 60  
 aaaccatata taatctcctg ctgacacatc tttttctttt cttttcttta tatcattttc 120  
 cttattagtt tctttgttta ctgcagtgac gagcttagga aaattgttac ttctgacctg 180  
 agaaagtgtg tgggagcaga gggggaacca acatttgta accatttcta ttggagtaaa 240  
 ggctttcctt tgtatggacg taactatggg tcagttctta agc 283

<210> 132  
 <211> 250  
 <212> DNA  
 <213> Glycine max

<400> 132

tgacaatttt gatgatagag gtggataata aagctgcagt ccttggttat atcggggcac 60  
 cgctcactct ggcatcacat gtgattgaag gtggttcatc accaaacttc tcgcaaataa 120  
 agagattggc tttctcagca tccaagatcc tgcactcgtt actgcagaag ttacgacat 180  
 ctctggcgag atacattctc taccaagctg acaatggagc tcaagctgtt cagatctttg 240  
 attcatgggc 250

<210> 133  
 <211> 235  
 <212> DNA  
 <213> Glycine max

<400> 133

tgacaatttt	gaggaaagag	gtggataata	aagctgcagt	ccttggtttt	gtcggggcac	60
cgttcactct	ggcatcatat	gtgggttgaag	gtgggttcac	aaaaaacttc	tcaaaaataa	120
agagattggc	tttctcagaa	tccaagatcc	tgcactcggt	actgcagaag	tttacaacat	180
caatggcaag	atacattcaa	taccaagctg	acaatggagc	tcaagctggt	cagat	235

<210> 134  
 <211> 282  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 134

gtggacaact	accacctgaa	atgtgggaac	gctgggtcaaa	gccttatatc	aaagagattg	60
taaatttggg	cangaaaaaa	tgccctgggg	taccaattgt	tctttatata	aacggaaatg	120
gtgggtcttct	tgagcgtatg	anagacaccg	gagttgatgt	tatagggcta	gactggacag	180
tggatatggc	agatggaaga	agaagattgg	gtagtgggat	aggtgttcag	ggaaatgtgg	240
accctgccta	cttattctcc	cctcttgatg	ccctgactga	ag		282

<210> 135  
 <211> 256  
 <212> DNA  
 <213> Glycine max  
  
 <400> 135

gggggatcct	gttagtcgtc	ctccggcatg	gatgatgcgc	caggccggaa	ggtacatggc	60
tgtttacaaa	aagcttgctg	agaaatatcc	atccttccga	gagaggtcag	agacaactga	120
tctcattgtg	gaaatttctt	tgacgccttg	gaatgctttc	aggcctgatg	gagtaattat	180
cttctcggac	atccttacac	cacttcctgc	gtttggagtt	gattttgaca	tagaagaagt	240
aaggggacct	gttata					256

<210> 136  
 <211> 386  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 136

ttcagggtca gccgcatagt taaggaaccg aaactccaca taggaatcac ttggttttctt 60  
 tgctctcccc caacccaatg gctacttcca ttaacagcag tgctctgggg tggaacatt 120  
 catccttctt cgtacaatcc aataatgggt tcaacgttgc ttgcctctct ttcaaaccaa 180  
 agccgncacg ctctccaac tttctctctt attgctctgc cgctctctct tcttctgac 240  
 cactgttggt taaggctgct aggggagatc ctgttagtgc tctccagca tggatgatgc 300  
 gccaggcagg aaggtacatg gctgtttaca aaaatcttgc tgagaaatat ccctcttcc 360  
 gagagaggtc agagacaact gaactc 386

<210> 137  
 <211> 291  
 <212> DNA  
 <213> Glycine max

<400> 137

aggttttaca tccaattgac ctggacaggc ttaaatttgt tggagattca ctaaagatac 60  
 tgcgccaaga ggttggtggt catgcagctg ttttgggttt tgtgggagca cttggacaa 120  
 tagcaacata tatagtggaa gggggtacaa cacgcacata tacaaccatt aagagcatgt 180  
 gccacactgc cccacatgta ttgaggactt tgctttctca tttgacgcag gcaatagctg 240  
 attacgttat tttccaagtg gagtctgggg ctcatgcat acaaatttt g 291

<210> 138  
 <211> 288  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 138

gcgccaagag gttggtggtc atgcagctgt tttgggtttt gtgggagcac cttgggacaa 60  
 tagcaacata tatagtggaa gggggtacaa cacgcacata tacaaccatt aagagcatgt 120  
 gccacactgc cccacatgta ttgaggactt tgctttctca tttgacgcag gcaatagctg 180  
 attacgttat tttccaagtg gagtctgggg ctcatgcat acaaatttt gattcatgnc 240  
 ngtggaacat accacctgaa atgtgggaac gctgggtcaaa gccttata 288

<210> 139  
 <211> 261

<212> DNA  
 <213> Glycine max  
 <400> 139  
 aaagatactg cgccaagagg ttggtggtca tgcagctgtc ttgggttttg tgggagcacc 60  
 ttggacaata gcaacatata tagtggaagg ggggtacaaca cgcacatata caaccattaa 120  
 gagcatgtgc cacactgccc cacatgtatt gaggactttg ctttctcatt tgacgcaggc 180  
 aatagctgat tacgttattt tccaagtga gtctggggct cattgcatac aaatattaga 240  
 tcatggggtg gacaactacc a 261

<210> 140  
 <211> 213  
 <212> DNA  
 <213> Glycine max  
 <400> 140  
 gacaatagca acatatatag tggaaggggg tacaacacgc acatatataa ccattaagag 60  
 catgtgccac actgccccac atgtattgag gactttgctt tctcatttga cgcaggcaat 120  
 agctgattac gttatatttc aagtggagtc tggggctcat tgcatacaaa tatttgattc 180  
 atggggtgga caactaccac ctgaaatgtg gga 213

<210> 141  
 <211> 236  
 <212> DNA  
 <213> Glycine max  
 <400> 141  
 tgttgaaaga cccccggttt ggctcatgag gcaagcaggg aggtacatga agagttacca 60  
 aaccatctgt gagaaatata cttcattccg tgaaagatct gaaaatgttg atctcgtggt 120  
 ggaaatttct ctgcaacat ggcatgtttt taagcccgat ggagtgattt tattctcaga 180  
 cattcttacc ccactttctg gaatgaatat accctttgat attgtgaagg gtaagg 236

<210> 142  
 <211> 263  
 <212> DNA  
 <213> Glycine max  
 <400> 142

tttggctcat gaggcaagca gggaggtaca tgaagagtta ccaaaccatc tgtgagaaat 60  
 atccttcatt ccgtgaaaga tctgaaaatg ttgatctcgt ggtggaaatt tctctgcaac 120  
 cgtggcatgt tttcaagcct gatggagtga ttttattctc agacattctt accccacttt 180  
 ctggaatgaa tatacccttt gatattgtga agggtaaggg tcctgttata tttgatccta 240  
 ttcacacatc tgcccagggt gat 263

<210> 143  
 <211> 258  
 <212> DNA  
 <213> Glycine max

<400> 143

gcttttgcta aatgcagttc gcgggataga tggtgaaaga cccccggttt ggctcatgag 60  
 gcaagcaggg aggtacatga agagttacca aaccatctgt gagaaatata cttcattccg 120  
 tgaaagatct gaaaatgtga tctcgtggtg gaaatttctc tgcaaccgtg gcatgttttc 180  
 aagcctgatg gagtgatttt attctcagac attcttacc cactttctgg aatgaatata 240  
 ccctttgata ttgtgaag 258

<210> 144  
 <211> 262  
 <212> DNA  
 <213> Glycine max

<400> 144

caaacatgct ttgcgtcaac actgccttca cctctttctt gccagaaaa tcaatttgct 60  
 tcttttctc caaatcaacc accccaattt cctgcaccct ccaaggaaca gttgcagaac 120  
 caaaatctac agctgctggt gaacctcttt tgctaaatgc agttcgtggg atagatgttg 180  
 aaagaccccc ggtttggtc atgaggcaag caggaggta catgaagagt taccaaacca 240  
 tctgtgagag atatccttca tt 262

<210> 145  
 <211> 283  
 <212> DNA  
 <213> Glycine max

<400> 145



acttggtatc tatacagatg ttgcattaga tccttattca tcagatgggc atgatggcat 60  
 agttagagaa gatggagtta ttatgaatga tgagacagtt catcagctat gtaaacaagc 120  
 tgtagccag gcccaagctg gaggagatgt tgtccagtct agtgatatga tggatggctg 180  
 ggtaggagca ctgcgtgcag ctctggatgc tgaaggcggt cagcatgtat ctataatgtc 240  
 ctatacagca aagtatgcaa gttcttttta tgggtccattt aga 283

<210> 146  
 <211> 316  
 <212> DNA  
 <213> Glycine max

<400> 146

ctgagatgcg ggaggatgaa tctgaaggag ctgacattct cttggtgaag cctgggtcttc 60  
 cttacttgga tatcataagg ctgctcaggg ataattctcc ttgccaatt gcagcatacc 120  
 aggtttctgg tgaatatgca atgataaagg ctgccgggtgc tctcaaatg atagacgaag 180  
 aaaaggttat gatggagtca ctgatgtgcc tccgaagggc cgggtgctgat atcatcctca 240  
 catattctgc tctgcaagct gccagatggt tgtgtggaga gaagagtga gttctctgat 300  
 tatgtagggc gttggt 316

<210> 147  
 <211> 271  
 <212> DNA  
 <213> Glycine max

<400> 147

tcgccggtaa ggttccgccg gcgcctcccg tgccgccag accggcggct cccggttgga 60  
 acaccggtgg ttccttcaact tccacaccac cggcgtcctc gtcggaaccg gaagtcgccg 120  
 gcgcttcggt cggtttttca ggaaacgagc atttcgccgg cgaatttcgt gtatccgctt 180  
 ttcattcacg aaggatgaaga ggatactcca attggggcta tgcctggatg ctacaggctt 240  
 ggggtggaggc atggacttgt agaagagggt g 271

<210> 148  
 <211> 275  
 <212> DNA  
 <213> Glycine max

<223>        unsure at all n locations  
 <400>        148

aagcctgggtc ttccttactt ggatatcata agtctgctca gggataattc tcctttgcca    60  
 attgcagcat accaggttct tttctttgcc cattctagca ctaggcaaaa cgtttctgat    120  
 aaaaagttga tcagatattc aatacatttt aaccagtgga attctgcntt aagcttgctg    180  
 caagtgcagc angtctatac gtagtagaca aatatcacac ctctagttta atatcaggct    240  
 gaggtacaag tttatgggtg ctttaacagt tattg                                    275

<210>        149  
 <211>        191  
 <212>        DNA  
 <213>        Glycine max

<223>        unsure at all n locations  
 <400>        149

ccggtgctga tatcatctc acatattctg ctctgcaagc tgccagatgt ttgtgtggag    60  
 agaagaggtg aagttctctg attatgcagg gcgttggttca tgtagaaggt tgaagagttt    120  
 anaaanccca gtnccgngn tncgggnnt cnnaaaattt taaaagggnc cccgcggttt    180  
 ntcnaaaang a    191

<210>        150  
 <211>        250  
 <212>        DNA  
 <213>        Glycine max

<400>        150

aggagatgaa gcatacagtg aaaatggttt agtgcctcgg acaatacgtt tgctcaagga    60  
 taagttacca gaccttggtg accaatccag aggtggaata aaatcctaata ccgtcagatg    120  
 ggcatgatgg catagtaaga gaagatgaag taataatgat tatgagacag gtcacagcc    180  
 atggtaacaa gctgtagacc aaggccaagc tggagcagat gttgtcagtc ctagtgatat    240  
 gatggatggt    250

<210>        151  
 <211>        357  
 <212>        DNA  
 <213>        Glycine max

<400> 151

acggctgcga caagacgaga taatgtggct gattggtaac gtagtgaatc ctgtgcatac 60

atccgctcgt agcctcttcc tgcgactctc ttctcagtgg gtctccgtat tctccctcaa 120

tctattaac cttttcttct ttcatttccc accccattct ataatcaatc agtgtcaatg 180

gcttcttcaa tcgctaatgc gccttctgcg ttcaattctc agtactactt tgggtctcaga 240

acgccactga ggtccttcaa cttttcttct cctcaagctg ccaaacttcc acgctcgcac 300

tgccttttctg tcgtcagagc ctccgattcg gtcttcgaaa ccgccgttgt cgccggt 357

<210> 152

<211> 418

<212> DNA

<213> Glycine max

<400> 152

agcccaggcg tcagtacggc tgcgagaaga cgacagaagg ggatgggtga ctgggtgttt 60

tttaaattgc atgaaacatt tatttgttct tatagaaaaa gttacaagta agtcttcact 120

gcaagtagaa gatattggat ccagttccag ggttgaactc catacgatta ttttttaata 180

gaaaaattga ctgtgacgta gctgtggagg acacgattgg taaagtattg aatccttcct 240

gcgactcttt tctcattggc tcaactgtgt ctccaaacac atctcagaat ctcttgatt 300

attattcaat caatcaatgg cttcttcaat ccctaattga cctccctctg cgttgaattc 360

ccagttctac gatgatctca gaccgccaca gaggacctc aacttttcct ttcttcaa 418

<210> 153

<211> 243

<212> DNA

<213> Glycine max

<400> 153

agcccaagcg tcagtacagc tgcgagagga ggacagaagg ggattctaca atcaatcaat 60

ggcaatggct tcatcaatcc ctaatgcgcc ttctgcgttc aattctcaaa gctacgttgg 120

tctcaggtcg ccaactgagga ctttcaactt ttcttctcct caaggtggca aaaatcctcg 180

ctcccaacgc cttttcgacg tcagagcctc cgaatccgag ttccaagccg ccgttgctcc 240

cgg 243

<210> 154  
 <211> 277  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 154

cgcagtcnga ggancctcca cagatatnca nctcttaatg tgcaggaana tttccgnggc 60  
 aatgtcnana caagggttaan aaagctcaat gaggggggttg tccaagctac actattagca 120  
 ttnnctggac tcaaacgctt aatatgacag anaatgtgac ttcaatccta tcantagatg 180  
 atatgcttcc agctgttgnc caaggtgcc a ttggaattgc ctgtagaagt gatgnnnata 240  
 anatggcaga atacattgat tcacttaatc atganga 277

<210> 155  
 <211> 285  
 <212> DNA  
 <213> Glycine max

<400> 155

tatgagatga agcatacagt gaaaatgggt tagtgccctcg gacaatacgt ttgctcaagg 60  
 ataagtaccc agaccttggt atctatacag atgttgcat agatccttat tcgtcagatg 120  
 ggcattgatgg catagttaga gaagatggag ttattatgaa tgatgagaca gttcatcagc 180  
 tatgtaaaca agctgtagcc caggcccaag ctggagcaga tgttgtcagt cctagtgata 240  
 tgatggatgg tcgggtagga gcactgcgtg cagctcttga tgctg 285

<210> 156  
 <211> 275  
 <212> DNA  
 <213> Glycine max

<400> 156

acggctgcga gaagacgaca gaaggggatg ctttgaagtc tcccacagga gatgaagcat 60  
 acaatgaaaa tgggttagtg cctcgaacaa tacgtttgct caaggataag taccagacc 120  
 ttgttatcta tacagatggt gcattagatc cttattcatc agatgggcat gatggcatag 180  
 ttagagaaga tggagttatt atgaatgatg agacagttca tcagctatgt aaacaagctg 240

tagcccaggc ccaagctgga gcagatgttg tcagt 275

<210> 157  
 <211> 262  
 <212> DNA  
 <213> Glycine max

<400> 157

ttttagtctc ccacaggaga tgaagcatac aatgaaaatg gtttagtgcc tcgaacaata 60  
 cgtttactca aggataagta cccagacctt gttatctata cagatgttgc attagatcct 120  
 tattcatcag atgggcatga tggcatagtt agagaagatg gagttattat gaatgatgag 180  
 acagttcatc agctatgtaa acaagctgta gcccagggtca tatgactgtc ttctataaac 240  
 attttcaact gtaggcagtt ac 262

<210> 158  
 <211> 289  
 <212> DNA  
 <213> Glycine max

<400> 158

gaaaagggtta tgatggagtc actgatgtgc ctccgaaggc cggtgctgat atcatcctca 60  
 catattctgc tctgcaagct gccagatgtt tgtgtggaga gaagagggtga agttctctga 120  
 ttatgtaggg cgttgttcat gtagaagggtt gaagagttta taataccagt atctgctgga 180  
 ttttggttat tgtaaattgt ttaagaggga catggagggtt tgtgtataga gagacattca 240  
 taataaaata ttatggcctc gtttgattta atatatgtaa ggacataat 289

<210> 159  
 <211> 255  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 159

ggttatgatg gagtcaactga tgtgcctccg aagggccggt gctgatatca tctcacata 60  
 ttctgctctg caagctgcc aatggtttgtg tggagagaag aggtgaagtt ctctgattat 120  
 gtagggcggtt gttcatgtag aaggttgaag agtttataat accagtatct gctggatttt 180  
 ggttattgta aattgtttta gagggacatg gngggtttgtg tatagagaga cattccta 240

taaatattag ggccc

255

<210> 160

<211> 262

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 160

tcgggtaggn gcactgcgtg cagctctgga tgctgaaggc tttcagcatg tttctataat 60

gtcctataca gcaaagtatg caagttcttt tnatggcca tttagagagg cactagactc 120

aaacccccgg tttggagaca agaaaactta tcagatgaac ccagctaatt acagagaggc 180

tctgactgag atgcgggagg atgaatctga aggagctgac attctcttgg tgaagcctgg 240

tcttccttac ttggatatca ta 262

<210> 161

<211> 253

<212> DNA

<213> Glycine max

<400> 161

gacagttcat cagctatgta aacaagctgt agcccaggcc caagctggag cagatgttgt 60

cagtcctagt gatatgatgg atggtcgggt aggagcactg cgtgcagctc tggatgctga 120

aggctttcag catgtttcta taatgtccta tacagcaaag tatgcaagtt ctttttatgg 180

tccatttaga gaggcactag actcaaacc cgggtttgga gacaagaaaa cttatcagat 240

gaaccagct aat 253

<210> 162

<211> 249

<212> DNA

<213> Glycine max

<400> 162

gttgtcagtc ctagtgatat gatggatggt cgggtaggag cactgcgtgc agctctggat 60

gctgaaggct ttcagcatgt ttctataatg tcctatacag caaagtatgc aagttctttt 120

tatggccat ttagagaggc actagactca aacccccggt ttggagacaa gaaaacttat 180

cagatgaacc cagctaatta cagagaggct ctgactgaga tgcgggagga tgaatctgaa 240  
ggagctgac 249

<210> 163  
<211> 248  
<212> DNA  
<213> Glycine max

<400> 163

gacagtccat cagctatgta aacaagctgt agcccaggcc caagctggag cagatgttgt 60  
cagtcctagt gatatgatgg atggtcgggt aggagcactg cgtgcagctc tggatgctga 120  
aggctttcag catgtttcta taatgtccta tacagcaaag tatgcaagtt ctttttatgg 180  
tccatttaga gaggcactag actcaaacc ccggtttgga gacaagaaaa cttatcagat 240  
gaaccag 248

<210> 164  
<211> 414  
<212> DNA  
<213> Glycine max

<400> 164

accacgcgt ccgtacggct ggagaagacg acagaagggg attctataat caatcaatgg 60  
caatggcttc ttcaatccct aatgcgcctt ctgcgttcaa ttctcagagc tacgttggtc 120  
tcagagcgcc actgaggacc ttcaactttt cttctcctca agctgcaaaa attcctcgct 180  
cccaacgcct tttcgtcgtc agagcctccg attcggagtt cgaagccgcc gttgtcgccg 240  
gtaagggttc gccggcgctt cccgtgccgc ccagaccggc ggctccggtt ggaacaccgg 300  
tggttccttc acttccactt caccggcgtc ctcgtcgga cgggaagtcg ccggcgcttc 360  
ggtcggcttt tcaggaaacg agcatttcgc cggcgaattt cgtgtatccg cttt 414

<210> 165  
<211> 394  
<212> DNA  
<213> Glycine max

<400> 165

tacggctgcg agaagacgac agaaggggat aatcaatcaa tggcaatggc ttcttcaatc 60

cctaatagcgc cttctgcgtt caattctcag agctacgttg gtctcagagc gccactgagg 120  
accttcaact tttcttctcc tcaagctgcc aaaattcctc gctcccaacg ctttttcgtc 180  
gtcagagcct ccgattcgga gttcgaagcc gccgttgctg ccggttaagg tccgccggcg 240  
cctcccgtgc cgcccagacc ggcggctccg gttggaacac cgggtggttc ttcacttcca 300  
cttcaccggc gtccctcgtc gaaccggaag tcgccggcgc ttcggtcggc ttttcaggaa 360  
acgagcattt cgccggcgaa tttcgtgtat ccgc 394

<210> 166  
<211> 283  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<400> 166

gctttttcaa tccctaatagc gccttctgctg ttcaattctc agagctacgt tgggtctcaga 60  
gcgccactga ggaccttcaa cttttcttct cctcaagctg ccaaaattcc tcgctcccaa 120  
cgctttttcg tcgtcagagc ctccgattcg gagttcgnag ccgccgttgt cgccggtaag 180  
gttcncccg cgctcccgt gccgccaga ccggcggtc cggttggaac accggtggtt 240  
ccttcacttc cacttcaccg gcgtcctcgt cggaaccgga agt 283

<210> 167  
<211> 286  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<400> 167

aatccctaata gcgccttctg cgttcaattc tcagagctac gttggtctca gagcgccact 60  
gaggaccttc aacttttctt ctctcaagc tgccaaaatt cctcgctccc aacgcctttt 120  
cgtcgtcaga gcctccgatt cggagttcga agccgncgtt gtcgccggtta aggttcgcc 180  
gngcctccc gtnccgcca gaccggcggc tccggttga acaccggtg ttccttcact 240  
tccacttcac cggcgtcctc gtcggaaccg gaagtcgcgg cgcttt 286

<210> 168  
<211> 278  
<212> DNA



<213> Glycine max

<400> 168

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cttcaatccc taatgcgcct tctgcgttca attctcagag ctacgttggt ctcagagcgc 60
cactgaggac cttcaacttt tcttctcttc aagctgccaa aattcctcgc tcccaacgcc 120
ttttcgtcgt cagagcatcc gattcggagt tcgaagccgc cgttgtcgcc ggtaaggttc 180
cgccggcgcc tcccgtgccg ccagaccgg cggtccgggt tggaacaccg gtggttcctt 240
cacttcact tcaccggcgt cctcgtcgga accggaag 278
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<210> 169

<211> 268

<212> DNA

<213> Glycine max

<400> 169

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ggcttcttca atccctaattg cgccttctgc gttcaattct cagagctacg ttggtctcag 60
agcgccactg aggaccttca acttttcttc tcctcaagct gccaaaattc ctcgctccca 120
acgccttttc gtcgtcagag cctccgattc ggagttcgaa gccgccgttg tcgccggtaa 180
ggttccgccg gcgcctcccg tgccgccag accggcggct ccggttgga caccggtggt 240
tccttcactt ccacttcacc ggcgtcct 268
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<210> 170

<211> 356

<212> DNA

<213> Glycine max

<400> 170

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attgaatcct gtgcatacat cctcacttat cctcttcttg cgactctctt ctcatgtggt 60
ctccgtattc tccctcaatc ctattaacct tttcttcttt catttccac cccattctat 120
aatcaatcaa tggcaatggc ttcttcaatc cctaatgcgc cttctgcgtt caattctcag 180
agctacgttg gtctcagagc gccactgagg accttcaact tttcttctcc tcaagctgcc 240
aaaattcctc gctcccaacg ctttttcgtc gtcagagcct ccgattcgga gttcgaagcc 300
gccgttgctg ccggttaagg tccgcggcg cctcccgctg cgcccagacc ggcggc 356
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<210> 171

<211> 287  
 <212> DNA  
 <213> Glycine max

<400> 171

gcttcttcaa tccctaattgc gccttctgct gttcaatgtc tcgagagctc acgttcgggt 60  
 ctccagcagc gaccacttgc aggacgcttg cagacgtttt gcttagctcc tacgaagctt 120  
 ggcgcaaata ttgcctgcgc taccatacgc ctttttacgt cgtcagagcc tccgattcgg 180  
 agttcgaagc cgccgttgtc gccggtaagg ttccgcgggc gcctcccgtg ccgcccagac 240  
 cggcggctcc ggttgggaaca ccggtggttc cttcacttcc acttcac 287

<210> 172  
 <211> 259  
 <212> DNA  
 <213> Glycine max

<400> 172

atggcaatgg cttcttcaat ccctaattgc ccttctgctg tcaattctca gagctacgtt 60  
 ggtctcagag cgccactgag gaccttcaac ttttcttctc ctcaagctgc caaaattcct 120  
 cgctcccaac gccttttctg cgtcagagcc tccgattcgg agttcgaagc cgccgttgtc 180  
 gccggtaagg ttccgcgggc gcctcccgtg ccgcccagac cggcggctcc ggttgggaaca 240  
 ccggtggttc cttcacttc 259

<210> 173  
 <211> 258  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 173

ggcttcttca atccctaatt gcgcttctgc gttcaattct cagagctacg ttggtctcag 60  
 agcgccactg aggaccttca acttttcttc tcctcaagct gccaaaattc ctgcctccca 120  
 acgccttttc gtcgtcagag cctccgattc ggagttcgaa gccgcggttg tcgccggtaa 180  
 ggttccgcgc gcgcctcccg tgnccgccag accggcggct ccggttggaa caccggtggt 240  
 tccttcattc cattcacc 258

<210> 174  
 <211> 234  
 <212> DNA  
 <213> Glycine max  
  
 <400> 174  
  
 ggctttcttca atccctaata cgccttctgc gttcaattct cagagctacg ttggtctcag 60  
 agcgccactg aggaccttca acttttcttc tcctcaagct gccaaaattc ctgctccca 120  
 acgccttttc gtcgtcagag cctccgattc ggagttcgaa gccgccgttg tcgccggtaa 180  
 ggttcgcgcg gcgcctcccg tgccgccag accggcggtc ccggttgga cacc 234

<210> 175  
 <211> 251  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 175  
  
 gctttcttcaa tccctaatagc gccttctgcg ttcaattctc agagctacgt ttggtctcaga 60  
 gcgcactga ggaccttcaa cttttcttct cctcaagctg ccaaaattcc tcgctccca 120  
 cgccttttcg tcgtcagagc ctccgattcg gagttcgang ccgccgttgt cgccggttag 180  
 gttccgcgcg cgctcccggt nccgccaga ccggcggtc cggttggaac aaccggtggt 240  
 tccttcaatt c 251

<210> 176  
 <211> 279  
 <212> DNA  
 <213> Glycine max  
  
 <400> 176  
  
 atccctaata cgccttctgc gttcaattct cagagctacg ttggtctcag agcgccactg 60  
 aggaccttca acttttcttc tcctcaagct gccaaaattc ctgctccca acgccttttc 120  
 gtcgtcagag cctccgattc ggagttcgaa gccgccgttg tcgccggtaa ggttcgcgcg 180  
 gcgcctcccg tgccgccag accggcggtc ccggttgga caccggtggt tccttcaatt 240  
 ccacttcacc ggcgtcctcg tcggaaccgg aagtcgcgcg 279

<210> 177

<211> 266  
 <212> DNA  
 <213> Glycine max

<400> 177

ggctttcttca atccctaatacg cgccttctgc gttcaattct cagagctacg ttggtctcag 60  
 agcgccactg aggaccttca acttttcttc tctcaagct gccaaaattc ctcgctccca 120  
 acgccttttc gtcgtcagag cctccgattc ggagttcgaa gccgccgttg tcgccggtta 180  
 ggttccgccg gcgcctcccg tgcgcccag accggcggct ccggttgga caccggtggt 240  
 tcttcaactt ccacttcacc ggcgtc 266

<210> 178  
 <211> 287  
 <212> DNA  
 <213> Glycine max

<400> 178

atcctattaa ccttttcttc tttcaatttc cacccttcc tatagtcaat caatggcaat 60  
 ggctttcttca atccctaatacg cgccttctgc gttcaattct cagagctacg ttggtctcag 120  
 agcgccactg aggaccttca acttttcttc tctcaagct gccaaaattc ctcgctccca 180  
 acgccttttc gtcgtcagag cctccgattc ggagttcgaa gccgccgttg tcgccggtta 240  
 ggttccgccg gcgcctcccg tgcgcccag accggcggct ccggttg 287

<210> 179  
 <211> 236  
 <212> DNA  
 <213> Glycine max

<400> 179

caatggcaat ggctttcttca atccctaatacg cgccttctgc gttcaattct cagagctacg 60  
 ttggtctcag agcgccactg aggaccttca acttttcttc tctcaagct gccaaaattc 120  
 ctcgctccca acgccttttc gtcgtcagag cctccgattc ggagttcgaa gccgccgttg 180  
 tcgccggtac agttccgccg gcgctcccg gccgcccaga ccggcggctc cggttg 236

<210> 180  
 <211> 395  
 <212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 180

tacgggatgcg agaagacgac agaaggggga ttggtaaaagt attgaatcct gtgcatacat 60  
cctcacttat cctcttctctg cgactctctt ctcatctggtt ctccgtattc tccctcaatc 120  
ctattaacct tttcttcttt catttccac cccattctat aatcaatcaa tggcaatggc 180  
ttcttcaatc cctaatagcgc cttctgcgtt caattctcag agctacgttg gtctcagagc 240  
gccactgagg accttcaact tttcttctcc tcaagctgcc aaaattcctc gctcncaacg 300  
ccttttcgtc gtcagagcct ccgattcgga gttcgaagcc gccgttgctg ccggtaagggt 360  
tccgccggcg cctcccgtgc cgcccagacc ggccgg 395

<210> 181

<211> 227

<212> DNA

<213> Glycine max

<400> 181

tggcttcttc aatccctaata gcgccttctg cgttcaattc tcagagctac gttggtctca 60  
gagcgccact gaggaccttc aacttttctt ctctcaagc tgccaaaatt cctcgctccc 120  
aacgcctttt cgtctcagag cctccgattc ggagttcgaa gccgccgttg tcgccggtaa 180  
ggttccgccg gcgcctcccg tgccgccag accggcggct ccggttg 227

<210> 182

<211> 271

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 182

ggcttcttca atccctaata gcgccttctg gttcaattct cagagctacg ttggtctcag 60  
agcgccactg aggaccttca acttttcttc tctcaagct gccaaaattc ctcgctccca 120  
acgccttttc gtcgtcagag cctccgattc ggagttcgaa gcagccgttg tcgccggtaa 180  
ggttccgccg gngcttcctt gccgnacaga ccggcggttc cngttggnac aacggtggtt 240  
ccttaattcc actnancggc gtcctntcng a 271

<210> 183  
 <211> 256  
 <212> DNA  
 <213> Glycine max

<400> 183

cggtctcgaga aaattgactg tcacgtagct gaagctgatt gagctacgtt ggtctcagag 60  
 cgccactgag gaccttcaac ttttcttctc ctcaagctgc caaaattcct cgctcccaac 120  
 gccttttcga cgtcagagcc tccgattcgg agttcgaagc cgccgttgtc gccggtaagg 180  
 ttccgcgggc gcctcccggtg ccgcccagac cggcggctcc ggttggaaca ccggtgggtc 240  
 cttcacttcc atttca 256

<210> 184  
 <211> 246  
 <212> DNA  
 <213> Glycine max

<400> 184

accttgtctt ctttcatttc ccaccccatt ctataatcaa tcaatggcaa ttgcttcttc 60  
 aatccctaata gcgccttctg cgttcaattc tcagagctac gttgggtctca gagcgccact 120  
 gaggaccttc aactttgctt ctctcaagc tgccaaaatt cctcgctccc aacgcctttt 180  
 cgtcgtcaga gcctccgatt cggagtctga agccgcggtt gtcgccggta agttccgccc 240  
 gcgctt 246

<210> 185  
 <211> 253  
 <212> DNA  
 <213> Glycine max

<400> 185

cgactctctt ctcatgggtt ctccgtatcc tccctcaatc ctattaacct tttcttcttt 60  
 catttcccaac ccattctat aatcaatcaa tggcaatggc ttcttcaatc cctaattgcgc 120  
 cttctgcgtt caattctcag agctacgttg gtctcagagc gccactgagg accttcaact 180  
 tttcttctcc tcaagctgcc aaaattcctc gctcccaacg ctttttcgtc gtcagagcct 240  
 ccgattcggg gtt 253

<210> 186  
 <211> 148  
 <212> DNA  
 <213> Glycine max

<400> 186

ctgcgttcaa ttctcagagc tacgttggtc tcagagcgcc actgaggacc ttcaactttt 60  
 cttctctca agctgccaaa attcctcgct cccaacgcct tttcgtcgtc agagcctccg 120  
 attcggagtt cgaagccgcc gttgtcgc 148

<210> 187  
 <211> 271  
 <212> DNA  
 <213> Glycine max

<400> 187

cggctcgagg ctgaagctga ttggtaaagt attgaatcct gtgcatacat cctcacttat 60  
 cctcttctctg cgactctctt ctcatgtggt ctccgtattc tccctcaatc ctattaacct 120  
 tttcttcttt catttccac ccattctata atcaatcaat ggcaatggct tcttcaatcc 180  
 ctaatgcgcc ttctgcgttc aattctcaga gctacgttgg tctcagagcg ccactgagga 240  
 ccttcaactt ttcttctcct caagctgcca a 271

<210> 188  
 <211> 104  
 <212> DNA  
 <213> Glycine max

<400> 188

atggcttctt caatccctaa tgcgccttct gcgttcaatt ctcagagcta cgttggtctc 60  
 agagcgccac tgaggacctt caacttttct tctcctcaag ctgc 104

<210> 189  
 <211> 64  
 <212> DNA  
 <213> Glycine max

<400> 189

agcttcttca atccctaatt cgccttctgc gttcaattct cagagctacg ttggtctcag 60

agcg

64

<210> 190  
<211> 266  
<212> DNA  
<213> Glycine max

<400> 190

tcggctcact cgagcgaatc ggctcaggaa aattgactgt gacgtagcac atcctgattg 60  
gtaaaactatt gaatcctgtg catacatcct cacttatacct cttcctgcga ctctcttctc 120  
cttggttctc cgtattctcc ctcaatccta ttaacctttt cttctttcat ttcccacccc 180  
attctataat caatcaatgg caatggcttc ttcaatccct aatgcgcctt ctgcgttcaa 240  
ttctcagagc tacgttggtc tcagag 266

<210> 191  
<211> 264  
<212> DNA  
<213> Glycine max

<400> 191

ctcatataga aaattgactg tgacgttgct gaagctgatt ggtaaagtat tgaatcctgt 60  
gcatacatcc tcacttatcc tcttcctgcg actctcttct cattgggttct ccgtattctc 120  
cctcaatcct attgaccttt tcttctttca tttcccaccc cattctataa tcaatcaatg 180  
gcaatggctt cttcaatccc taatgcgcct tctgcgttca attctcagag ctacgttggt 240  
ctcagagcgc cactgaggac cttc 264

<210> 192  
<211> 335  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<400> 192

atatgctnnc cagctgttgc ccaaggtgcn attggaatag cctgtagaag taacgatgat 60  
aaaatgnnca gaatacctcn ncttcattga atcatgaaga aacaagacta gcagtttgc 120  
gtgaaagagc cttccttgan aagtagaagg atntgceгна nnetattgca ggctatgcta 180  
gcagaaacga ggatggcaat tgcttgttta gaggatagtt gcttcccctg atggaacccg 240



cgctgctcgaa actccagaat ggttcanatg ctttcgaaga tatgataaag atgggtaaga 300  
 tgctggagag gagctctttc tcgagctgac ntgct 335

<210> 193  
 <211> 257  
 <212> DNA  
 <213> Glycine max

<400> 193

gaacagcgaa atcgacatcg ctgtccattc gatgaaggat gttcctactt acttgctga 60  
 taaaacaatt ctgccatgta accttccgcg agaggatgtc agagatgcat ttatatacctt 120  
 gactgcagct tccttagctg atcttcccc tgcaagtgtt attggtactg cttcggttaag 180  
 gcgaaagtca cagatcctcc acagatatcc atctcttaat gtgcaggaaa atttccgtgg 240  
 caatgtccaa acaaggt 257

<210> 194  
 <211> 269  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 194

cgtttaaata tgacggaaaa tgtgacttcg atcctatcaa ttgatgacat gcttccagct 60  
 gttgcccaag gtgcaattgg aatagcctgt agaagtaatg atgataaaat ggcggaatac 120  
 cttgcttcac tgaatcatga agaaacaaga ctagcagttt cctgcgaaag angcttcctt 180  
 gaaaagttgg aagggtctgc cgcactccta ttgcaggcta tgctagcaga aatgaggatg 240  
 gcaattgctt gtttagagga ttagttgca 269

<210> 195  
 <211> 259  
 <212> DNA  
 <213> Glycine max

<400> 195

tgatgataaa atggcggaat accttgcttc actgaatcat gaagaaacaa gactagcagt 60  
 ttctgtgaa agatccttcc ttgaaaagtt ggaaggggtct tgccgcactc ctattgcagg 120

ctatgctagc agaaatgagg atggcaattg cttgtttaga ggattagttg catccccctga 180  
 tggaatccgt gtgcttgaaa cttccagaat tggcccatat gcgttcgcag atatgataaa 240  
 gatgggtaag gatgctgga 259

<210> 196  
 <211> 205  
 <212> DNA  
 <213> Glycine max

<400> 196

cttaagtatg acagaaaatg tgacttcaat cctatcaatt gatgatatgc ttccagctgt 60  
 tgcccaaggt gctattggaa tagcatgtag aagtgatgac gataaaatgg cggaatacat 120  
 tgctacactt aatcatgaag aaacaagact agcagttgtc tgtgagaggg cttttcttca 180  
 gactttggat gggctctgccg cactc 205

<210> 197  
 <211> 271  
 <212> DNA  
 <213> Glycine max

<400> 197

ctgcttcggt aaggcgaaag tcacagatcc tccacagata tccatctctt aatgtgcagg 60  
 aaaatttccg tggcaatgtc caaacaaggt taagaaaact caatgagggg gttgtccaag 120  
 ctacactatt agcattagct ggactcaaac gcttaagtat gacagaaaat gtgacttcaa 180  
 tcctatcaat agatgatatg cttccagctg ttgcccaagg tgccattgga attgcctgta 240  
 gaagtgatga cgataaaatg gcagaataca t 271

<210> 198  
 <211> 287  
 <212> DNA  
 <213> Glycine max

<400> 198

attggaattg cctgtagaag tgatgacgat aaaatggcag aatacattga ttcacttaat 60  
 catgaagaaa caaggctagc agttgtctgt gaaagggcct ttcttcagac tttggatggg 120  
 tcttgccgca ctctattgc agggtatgct tgtagaaacg aggatggcaa ttgtttgttt 180

agaggattag ttgcttcccc tgatggaacc agagtgctag agacatccag ggttggtcca 240  
 tatgctgttg aagatatgat tgagatgggt aaggatgctg gcaagga 287

<210> 199  
 <211> 276  
 <212> DNA  
 <213> Glycine max

<400> 199

attggaatt gctgtagaa gtgatgacga taaaatggca gaatacattg attcacttaa 60  
 tcatgaagaa acaaggctag cagttgtctg tgaaagggcc tttcttcaga ctttggatgg 120  
 gtcttgccgc actcctattg cagggatatgc ttgtagaaac gaggatggca attgtttggt 180  
 tagaggatta gttgcttccc ctgatggaac cagagtgcta gagacatcca gggttggtcc 240  
 atatgctgtt gaagatatga ttgagatggg taagga 276

<210> 200  
 <211> 285  
 <212> DNA  
 <213> Glycine max

<400> 200

attggaattg cctgtagaag tgatgacgat aaaatggcag aatacattga ttcacttaat 60  
 ccatgaagaa acaaggctag cagttgtctg tgaaagggcc tttcttcaga ctttggatgg 120  
 gtcttgccgc actcctattg cagggatatgc ttgtagaaac gaggatggca attgtttggt 180  
 tagaggatta gttgcttccc ctgatggaac cagagtgcta gagacatcca gggttggtcc 240  
 atatgctgtt gaagatatga ttgagatggg taaggatgct ggcaa 285

<210> 201  
 <211> 259  
 <212> DNA  
 <213> Glycine max

<400> 201

gtgaaagggc ctttcttcag actttggatg ggtcttgccg cactcctatt gcaggggatg 60  
 cttgtagaaa cgaagatggc aattgtttgt ttagaggatt agttgcttcc cctgatggaa 120  
 ccagagtgct agagacatcc agggttgggtc catatgctgt tgaagatatg attgagatgg 180

gtaaggatgc tggcaaggag cttctgtctc gggctggacc taacttcttc agtagttagc 240  
 agcagatgat taaagtgtg 259

<210> 202  
 <211> 285  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <400> 202

gcagacagaa gcgaacgnaa cgggggttgcc tcaacaattc gctggtgttg ttctcttctc 60  
 ttctctttga catgaatact ctttcttcca cgctccatgg cggcaggctt ccccgctcag 120  
 cttcgaaaac caaaaccgca tctctctcca aatgccatcg catttgggtc accaaagctt 180  
 ctggtgccgt tgagcaacaa actaaggctg ctctcatcag aattggtacc agaggaagtc 240  
 cactagctct agcacaagca tatgagacca gagacaaact catgg 285

<210> 203  
 <211> 282  
 <212> DNA  
 <213> Glycine max  
 <400> 203

agcagacaga agcgagcgaa acgggggttgc ctcaacaatt cgctggtgtt gttctcttct 60  
 cttctctttg acatgaatac tctttcttcc acgctccatg gcgggaggct tccccgctca 120  
 gcttcgaaaa ccaaaaccgc atctctctcc aaatgccatc gcatttgggt caccaaagct 180  
 tctggtgccg ttgagcaaca aactaaggct gctctcatca gaattggtac cagaggaagt 240  
 ccactagctc tagcacaagc atatgagacc agagacaaac tc 282

<210> 204  
 <211> 251  
 <212> DNA  
 <213> Glycine max  
 <400> 204

ccgaacgaaa cgggggttgcc tcaacaattc gctggtgttg ttctcttctc ttctctttga 60  
 catgaatact ctttcttcca cgctccatgg cgggtggctt ccccgctcag cttcgaaaac 120  
 cacaaccgca tctctctcca aatgccatcg catttgggtc accaaagctt ctggtgccgt 180

tgagcaacaa actaaggctcg ctctcatcag aattgggtacc agaggaagtc cactagctct 240  
 agcacaagca t 251

<210> 205  
 <211> 327  
 <212> DNA  
 <213> Glycine max

<400> 205

atcggcaagg taaggcaatt gaagttgtga aatggagact gtctgctctg cattggtggt 60  
 cccatctttc agaatcaciaa cttcagcttt ctccaaatgt ggcacacagg cttccattgc 120  
 cggttagcaa caaacttcgc agactaaggt tgctctcttc aaaattggta ccagaggaag 180  
 tccactagct ctggctcagg catatgagac cagagacaag ctcatggcat cacatccaga 240  
 gctagcggaa gaaggggcta ttcagattgt gataatgaaa acaactgggtg acaaaatact 300  
 atcacagcca cttgcagaca tcggcgg 327

<210> 206  
 <211> 390  
 <212> DNA  
 <213> Glycine max

<400> 206

gaaatggaga ctctctgctc tgcattgggtg ttcccatctt tcagaatcac aacttcagct 60  
 ttctccaaat gtggcatcag ggctttcatt gccgttgagc aacatacttc gcagactaag 120  
 gttgctctcc tcaaaattgg taccagagga agtcactag ctctgggtca tgcatatgag 180  
 accagagaca atctcatggc atcacatcca gagctagcgg atgaaggggc tattcagatc 240  
 gtgataataa aaacaactgg tgacattata ctatcacagc cacttgcaga catcggcggt 300  
 aagggcctgt ccacaatcga tatagacgag gcactcatta acggtgacat tgacatcgcc 360  
 gttcactcta tgaaagatgt acccacttac 390

<210> 207  
 <211> 256  
 <212> DNA  
 <213> Glycine max

<400> 207

cgttgctctc ctcagaattg gtaccagagg aagtccacta gctctggctc acgcatatga 60  
gaccagagac aagctcatgg catcacatgc agagctagca caagaagggg ctattcagat 120  
tgtaataatc aaaacaactg gtgacaaaat actatcacag ccacttgcag acattgggtgg 180  
gaagggccta ttcacaaaag aaatagatga ggcactcata aacgggtgaca ttgacatcgc 240  
tgtccactca atgaaa 256

<210> 208  
<211> 289  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<400> 208

ggagaccctc tgnctctgca ttggtgttcc catctttcag aatcagnact tcagctttct 60  
ccaaatgtgg catcagggcn tccattgccg ttgagcaaca aanttcccag actaagggttg 120  
ctctcctcag aattgggtacc agaggaagtc cactagctct ggctcaggca tatgagacca 180  
gagacaagct catggcatca catgcagagc tagcagaaga aggggctatt cagnttgtaa 240  
taataanaac nactggtgac aanatactat cacagccact tgcagacat 289

<210> 209  
<211> 259  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<400> 209

agggcttcca ttgccgttga gcaacaaact tcccagacta aggttgctct cctcagaatt 60  
ggtaccagag gaagtccact agctctggct cncgcatatg agaccagaga caagctcatg 120  
gcatnccatg cagagctagc agaagaaggg gctattcaga ttgtaataat aaaaacaact 180  
ggtgacaaaa tactatcaca gccacttgca gacattgggtg ggaagggcct attcacaaaa 240  
gaatagatga ggcatacata 259

<210> 210  
<211> 268  
<212> DNA  
<213> Glycine max

<400> 210

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ctctctgctc tgcattggtg ttcccatatt tcagaatcac aacttcagct ttctccaaat 60
gtggcatcag ggcttccatt gccgttgagc aacaaacttc gcagactaag gttgctctcc 120
tcaaaattgg taccagagga agtccactag ctctgggtca ggcatatgag accagagaca 180
agctcatggc atcacatcca gagctagcgg aagaaggggc tattcagatt gtgataataa 240
aaacaactgg tgacaaaata ctatcaca 268
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<210> 211

<211> 270

<212> DNA

<213> Glycine max

<400> 211

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ggagactctc tgctctgcat tgggtgtccc atctttcaga atcacaactt cagctttctc 60
caaatgtggc atcagggcct ccattgccgt tgagcaacaa acttcgcaga ctaagggttg 120
tctcctcaaa attggtacca gaggaagtc actagctctg gctcaggcat atgagaccag 180
agacaagctc atggcatcac atccagagct agcgggaagaa ggggctattc agattgtgat 240
aataaaaaca actggtgaca aaatactatc 270
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<210> 212

<211> 295

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 212

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tggagaccct ctgctctgca ttggtgttcc catctttcag aatcagaact tcagctttct 60
ccaaatgtgg catcagggct tccattgccg ttgagcaaca aacttcccag actaagggtg 120
ctctcctcag aattggtacc agaggaagtc cactagctct ggctcaggca tatgagacca 180
gagacaagct catggcatca catgcagagc tagcagaaga aggggctatt cagattgtat 240
aataanaaca actggtgaca aaatatatca cagccattgc agacattggt gggag 295
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<210> 213

<211> 267

<212> DNA

<213> Glycine max

<400> 213

ctctctgctc tgcattggtg ttcccatctt tcagaatcac aacttcagct ttctccaaat 60  
gtggcatcag ggcttccatt gccgttgagc aacaaacttc gcagactaag gttgctctcc 120  
tcaaaattgg taccagagga agtccatagc tctggctcag gcatatgaga ccagagacaa 180  
gctcatggca tcacatccag agctagcgga agaaggggct attcagattg tgataataaa 240  
aacaactggt gacaaatact atcacag 267

<210> 214

<211> 251

<212> DNA

<213> Glycine max

<400> 214

tggagactct ctgctctgca ttggtgttcc catctttcag aatcacaact tcagctttct 60  
ccaaatgtgg catcagggtt tccattgccg ttgagcaaca aacttcgcag actaagggtg 120  
ctctcctcaa aattggtacc agaggaagtc cactagctct ggctcaggca tatgagacca 180  
gagacaagct catggcatca catccagagc tagcggaaga aggggctatt cagattgtga 240  
taataaaaac a 251

<210> 215

<211> 159

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 215

ccacttcagc tttctccaaa tgtggcatca gggcttccat tgccgttgag caacaaactt 60  
cccagactaa gggtgctctc ctcagaattg gtaccagagg aagtccacta gctctggctc 120  
aggcatatgn gaccagagac aagntcatgg catcacang 159

<210> 216

<211> 270

<212> DNA

<213> Glycine max

<400> 216



gttcccatct ttcagaatca gaacttcagc tttctccaaa tgtggcatca gggcttccat 60  
tgccgttgag caacaaactt cccagactaa gggtgctctc ctcagaattg gtaccagagg 120  
aaggtaccct acccttaaaa ataacacctt tagcttctta tgagcatttc ttttaaagaa 180  
caagtctgtg aaaatattga gtctgaatc ttttcaaac tttgcctca ttttcaaatt 240  
tagttttcaa tgctagtttt atgacagaaa 270

<210> 217  
<211> 147  
<212> DNA  
<213> Glycine max

<400> 217

gtgaaatgga gaccctctgc tctgcattgg tgttcccatc tttcagaatc agaacttcag 60  
ctttctccaa atgtggcatc agggcttcca ttgccgttga gcaacaaact tcccagacta 120  
aggttgctct cctcagaatt ggtacca 147

<210> 218  
<211> 253  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<400> 218

ccaagaccga caacaaactc actcttacca agtccgagga agctttcgct gctgccaagg 60  
agcngatgcc tggaggtgtc aactccccag ttngtgcctt caaatccgtg ggtgggtcaac 120  
caattgtgat tgattcagtc aaaggggtctc gtatgtggga catcgacggc aatgagtaca 180  
ttgactacgt cggttcttgg ggtcccgcaa tcattgggtca cgctgatgat caagtgcctt 240  
cagctctgggt tgt 253

<210> 219  
<211> 264  
<212> DNA  
<213> Glycine max

<400> 219

tgcgtgcgtg agcgtcttac ctttccatta tcaaaatgac tgtttcagct atcacaggct 60

cgcagtctca cctcttgcca tggtttagcga tacctctttc ctctcccacg cgtctctgaa 120  
 tcgtcgcaat ggccgtatcc gtcgtcccca agaccgacaa caaactcact cttaccaagt 180  
 ccgaagcagc tttcgctgct gccaaaggagc tgctgcctgg cgggtgtcaac tccccagttc 240  
 gtaccttcaa atccgtaggt ggtc 264

<210> 220  
 <211> 157  
 <212> DNA  
 <213> Glycine max

<400> 220

ctcgtctgag ggctgttacc atggccatgc tgatcctttt cgtgttaagg caggtagtgg 60  
 agttgccacc ttgggacttc ctgattctcc cgggtgtcccc aaagctgaca ctgtggaaac 120  
 ccttacagcg ccctacaatg atactgccgc cgtcgag 157

<210> 221  
 <211> 266  
 <212> DNA  
 <213> Glycine max

<400> 221

aaacccgatt ttcataatth cttgcgcaag atcaccaagg agaacaatac ctttcttgtg 60  
 tttgatgaag ttatgactgg gtttcgthtg tcatacggag gtgctcaaga gtatthttggc 120  
 ataactcctg atatacaact ctaggaaaga tcattggtgg aggtctgccg gtgggggctt 180  
 atggaggggag gagggatatt atggagaagg tggcaccagc tggcccaatg tatcaggctg 240  
 ggaccttgag tgggaacctt tggcca 266

<210> 222  
 <211> 250  
 <212> DNA  
 <213> Glycine max

<400> 222

aaaggagaaa ttgccgcagt tttcctcgaa cctgttgthg gaaacgctgg tttcattgth 60  
 cctaagcctg atthttcatag tttcttgccg aagatcacca aggagaacaa tacccttctt 120  
 gtgtthtgatg aagtcatgac tggatthctg ttgtcatatg gaggtgctca agagtattat 180

ggcataactc cagatataac aactctagga aagatcattg gtggaggtct gccggtaggg 240  
 cttatggagg 250

<210> 223  
 <211> 256  
 <212> DNA  
 <213> Glycine max

<400> 223

gctcaagagt attttggcat aactcctgat ataacaactc taggaaagat cattggtgga 60  
 ggtctgccgg tgggggctta tggagggagg agggatatta tggagaaggt ggcaccagct 120  
 ggcccaatgt atcaggcttg gaccttgagt gggaaccctt tggccatgac tgcaggaata 180  
 cagaccctgc agcgtattaa ggagccagga acttatgagt acttggacaa aatcaccggt 240  
 gagcttggtc agggca 256

<210> 224  
 <211> 288  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 224

tttaggnagc tgatgcctgg anggcgtgaa ctccccagtt cgtgncttca aatccgtggg 60  
 tgggtcaacca attgtgattg attcagtcaa agggctctcg atgtgggata tcgatggcaa 120  
 tgagtacatt gactacgttg gttcctgggg tcctgcaatc attggtcacg ctgatgatca 180  
 ggtgcttgca gctctgggtg aaaccatgaa ganaggaacc agctttgggt gcaccctgtc 240  
 tgctggaaaa cacttttggc agagctgggt tatcgatgcc gtncccca 288

<210> 225  
 <211> 283  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 225

attttgcaga tgccaaaaag agtgatacgg ccaagtttgc taggcccttt tggggaatgc 60  
 tggcggaagg tgtctatttg gcaccttccc agnttgangc nggcttcacc agcttggcac 120

atacttctgn tgacataaaa aagacgatan ccgctgntga gaagggttttc anggagntct 180  
gatgggttaaa ttttgnnttg ttgcaaattt aattntcgga ggggtgaattt ttaggtcaat 240  
ttngattatt gttatggcag ttgctttcgn tatgatctgt atc 283

<210> 226  
<211> 249  
<212> DNA  
<213> Glycine max

<400> 226

gggtcctgca atcattggtc acgctgatga tcagggtgctt gcagctctgg gtgaaaccat 60  
gaagaaagga accagctttg gtgcaccctg tctgctggaa aacactttgg cagagctggg 120  
tatcgatgcc gtccccagca ttgaaatggg tcggtttgct aattcaggca ctgaagcttg 180  
catgggtgcg ctccgtctgg cccgtgctta taccggaaga gagaagatca tcaagtttga 240  
gggctgtta 249

<210> 227  
<211> 442  
<212> DNA  
<213> Glycine max

<400> 227

ataaggcttt gcatttcatt tgagagagag agcgtcttac ctttccatta tcaaaatggg 60  
tgggctcggt atcacaggag cgaggctaac cctagggata gggttggcga tacctctttc 120  
ctctcccacg cgctctcgaa ccgtcgcaat ggccgtatcc gtcgacccca agaccgacaa 180  
caaactcact cttaccaagt ccgaggaagc tttcgtgct gccaaaggtag gcatgacctc 240  
cctcttcctt ccttccttcc tcctttcaat tttgattttt gatttttgat ttcaggagct 300  
gatgcctgga ggtgtcaact cccagttcg tgccttcaaa tccgtgggtg gtcaaccaat 360  
tgtgattgat tcagtcaaag ggtctcgat gtgggacatc gacggcaatg agtacattga 420  
ctacgtcggg tcttgggggc cc 442

<210> 228  
<211> 275  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
 <400> 228

tcaaaatggc tgtttcggct atcacaggag cgaggctaac cctagggata gggttggcga 60  
 tacctctttc ctctcccacg cgctctcgaa cntcgcaat ggccgtatcc gtcgacccca 120  
 agaccgacaa caaactcact cttaccaagt ccgaggaagc tttcgctgct gccaaaggagc 180  
 tgatgcctgg aggtgtcaac tccccagttc gtgccttcaa atccgtgggt ggtcaaccaa 240  
 ttgtgattga ttcagtcaaa gggctctcgta tgtgg 275

<210> 229  
 <211> 261  
 <212> DNA  
 <213> Glycine max

<400> 229  
 acccacgcgt ccgacggctg caagaggacg acagaagggg aaggctttgc atttcatttg 60  
 agagagagag cgtcttacct ttccattatc aaaatggctg tttccgctat cacaggagcc 120  
 aagctaacc taaggataag gttggcgata cctccttcct ctccaagcg ctctcgaacc 180  
 gtcgcaatgg ccgtatccgt cgaccccaag accgacaaca aactcaatcc taccaagtcc 240  
 gaagaagctt tcgctgctgc c 261

<210> 230  
 <211> 289  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 230

ggagaggata aggctttgca tttcatttga gaganagagc gtcttacctt tccattatca 60  
 aaatggctgt ttcggctatc acaggagcga ggctaaccct agggataggg ttggcgatac 120  
 ctctttcctc tcccacgcgc tctcgaaccg tcgcaatggc cgtatccgtc gaccccaaga 180  
 ccgacaacaa actcactctt accaagtccg aggaagcttt cgctgctgcc aaggagctga 240  
 tgcctggagg tgtcaactcc ccagttcgtg ccttcaaate cgtgggtgg 289

<210> 231  
 <211> 252  
 <212> DNA

<213> Glycine max

<400> 231

agcgtcttac ctttccatta tcaaaatggc tgtttcggct atcacaggag cgaggctaac 60  
cctagggata gggttggcga tacctctttc ctctcccacg cgctctcgaa ccgtcgcaat 120  
ggccgtatcc gtcgacccca agaccgacaa caaactcact cttaccaagt ccgaggaagc 180  
tttcgctgct gccaaaggagc tgatgcctgg aggtgtcaac tccccagttc gtgccttcaa 240  
atccgtgggt gg 252

<210> 232

<211> 281

<212> DNA

<213> Glycine max

<400> 232

ggctttgcat ttcatttgag agagagagcg tcttaccttt ccattatcaa aatggctggt 60  
tcggctatca caggagcgag gctaacccta gggatagggt tggcgatacc tctttcctct 120  
cccacgcgct ctcgaaaccgt cgcaatggcc gtatccgtcg accccaagac cgacaacaaa 180  
ctcactctta ccaagtccga ggaagctttc gctgctgcc aaggagctgat gcctggaggt 240  
gtcaactccc cagttcgtgc cttcaaatec gtgggtgggc a 281

<210> 233

<211> 276

<212> DNA

<213> Glycine max

<400> 233

taaggctttg catttcattt gagagagaga gcgtcttacc tttccattat caaaatggct 60  
gtttcggcta tcacaggagc gaggctaacc ctagggatag ggttggcgat acctctttcc 120  
tctcccacgc gctctcgaa cgtcgcaatg gccgtatccg tcgaccccaa gaccgacaac 180  
aaactcactc ttaccaagtc cgaggaagct ttcgctgctg ccaaggagct gatgcctgga 240  
gggtgtcaact ccccagttcg tgccttcaaa tccgtg 276

<210> 234

<211> 276

<212> DNA

<213> Glycine max

<400> 234

ttgcatttca tttgagagag agagcgtctt acctttccat tatcaaaatg gctgttttcgg 60  
ctatcacagg agcgaggcta accctagggg taggggttggc gatacctctt tcctctccca 120  
cgcgctctcg aaccgctcga atggccgtat ccgctcgaccc caagaccgac aacaaactca 180  
ctctttacca gtccgaggaa gcttttcgctg ctgccaaagga gctgatgcct ggaggccgtc 240  
aatccccagt tcgtgccttc aaatccgtgg gtggtc 276

<210> 235

<211> 251

<212> DNA

<213> Glycine max

<400> 235

tttgcatttc atttgagaga gagagcgtct tacctttcca ttatcaaaat ggctgttttcg 60  
gctatcacag gagcgaggct aaccctaggg ataggggttgg cgatacctct ttcctctccc 120  
acgcgctctc gaaccgctgc aatggccgta tccgctcgacc ccaagaccga caacaaactc 180  
actcttacca agtccgagga agcttttcgct gctgcaagga gctgatgcct ggagggtgtca 240  
actccccagt t 251

<210> 236

<211> 271

<212> DNA

<213> Glycine max

<400> 236

cggctcgaca aggctttgca tttcatttga gagagagagc gtcttacctt tccattatca 60  
aaatggctgt ttcggctatc acaggagcga ggctaaccct agggataggg ttggcgatac 120  
ctcttttctc tcccacgcgc tctcgaaccg tcgcaatggc cgtatccgtc gaccccaaga 180  
ccgacaacaa actcactctt accaagtccg aggaagcttt cgctgctgcc aaggagctga 240  
tgccctggagg tgtcaactcc ccagttcgtg c 271

<210> 237

<211> 257

<212> DNA

<213> Glycine max

<400> 237

ggagaggata aggcctttgca ttccatttga gagagagagc gtcttaactt tacattatca 60  
aaatggctgt ttccgctatc acaggagcga ggctaaatct agggataggg ttggcgatac 120  
ctcttttctc tcccacgcgc tctcgaaccg tcgcaatggc cgtatccgtc gaccccaaga 180  
ccgacaacaa actcactctt accaagtcgc aggaagcttt cgctgctgcc aaggagctga 240  
tgcttgaggg tgtcaac 257

<210> 238

<211> 153

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 238

acaggagcga ggctaaccct agggataggg ttggcgatan ctcttttctc tcnactccg 60  
ctctcgaacc ntcgcaatgg ccgtatccgt cgaccccaag acngacaaca aactcactct 120  
taccaagtcc gaggaagctt tcgctgctgc caa 153

<210> 239

<211> 104

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 239

acggctgcga gaagacgaca gaagggggag cgtcttacct ttccattatc aaaatggcta 60  
tttcggctat cacaggagcg aggcctaancc tagggatagg gttg 104

<210> 240

<211> 268

<212> DNA

<213> Glycine max

<400> 240

ggctgggacc ttgagtggga accctttggc catgactgca ggaatacaga ccctgcagcg 60  
tattaaggag ccaggaactt atgagtactt ggacaaaatc accggtgagc ttgttcaggg 120



cattattgaa gctgggaaga gggcaggcca tgcaatatgt ggtggtcata taagggggat 180  
 gtttggggttt ttcttcacag aaggaccagt gtataatttt gcagatgccca aaaagagtga 240  
 tacggacaag tttctaggtt cttttggg 268

<210> 241  
 <211> 256  
 <212> DNA  
 <213> Glycine max

<400> 241

gaaggtggca ccagctggcc caatgtatca ggctgggacc ttgagtggga accctttggc 60  
 catgactgca ggaatacaga ccctgcagcg tattaaggag ccaggaactt atgagtactt 120  
 ggacaaaatc accggtgagc ttgttcaggg cattattgaa gctgggaaga gggcaggcca 180  
 tgcaatatgt ggtggtcata taagggggat gtttggggttt ttcttcacag aaggaccagt 240  
 gtataatttt gcagat 256

<210> 242  
 <211> 253  
 <212> DNA  
 <213> Glycine max

<400> 242

ggcaccagct ggcccaatgt atcaggctgg gaccttgagt gggaaccctt tggccatgac 60  
 tgcaggaata cagaccctgc agcgtattaa ggagccagga acttatgagt acttggacaa 120  
 aatcaccggt gagcttggtc agggcattat tgaagctggg aagagggcag gccatgcaat 180  
 atgtggtggt catataaggg ggatgtttgg gtttttcttc acagaaggac cagtgtataa 240  
 ttttgcagat gcc 253

<210> 243  
 <211> 269  
 <212> DNA  
 <213> Glycine max

<400> 243

ctcgagccgc tcgagccggt ctgctggaaa acactttggc agagctgggt atcaatgcgg 60  
 tccccagcat tgcaatgggt cgctttgtca attcaggcac cgaagcttgc atgggtgcac 120

tacgtctcgc ccgagcttat accggaagag agaagatcat caagtttgag ggctgttacc 180  
atggccatgc tgatcctttt cttgttaagg caggtagtgg agttgccacc ttgggacttc 240  
ctgattctcc cgggtgtccc aaagctgcc 269

<210> 244  
<211> 266  
<212> DNA  
<213> Glycine max

<400> 244

ctcgagccgc tcgagccggt ctgctggaaa acactttggc agagctgggt atcaatgcgg 60  
taccagcat taccaatggt tcgctttgtc aattcaggca ccgaagcttg catgggtgca 120  
ctacgtctcg cccgagctta taccggaaga gagaagatca tcaagtttga gggctgttac 180  
catggccatg ctgatccttt tcttgtaag gcaggtagtg gagttgccac cttgggactt 240  
cctgattctc cgggtgtccc caaagc 266

<210> 245  
<211> 266  
<212> DNA  
<213> Glycine max

<400> 245

tcaagtttga gggctgttac cgtggccatg ctgatccttt tcttgtaag gcaggtagtg 60  
gagttgccac cttaggactt cctgattctc cgggtgtccc caaagctgcc acttttgaaa 120  
cccttacagc cccctacaat gacaccgagg ccattgagaa actcttcgag gccaacaaag 180  
gagaaattgc cgcagttttc ctggaacctg ttgttgaaa cgctggtttc attgttccta 240  
agcctgattt tcatagtttc ttgcgc 266

<210> 246  
<211> 238  
<212> DNA  
<213> Glycine max

<400> 246

gttaccatgg ccatgctgat ccttttcttg ttaaggcagg tagtggagtt gccaccttgg 60  
gacttctga ttctcccggt gtcccaaaag ctgccacttt tgaaaccctt acagccccct 120

acaatgacac tgccgcccgtt gagaagctct ttgaggctaa caaaggagaa atcgctgctg 180  
 ttttctcga acctgttggt ggaaacgctg gtttcattgt tcctaaaccg attttcat 238

<210> 247  
 <211> 232  
 <212> DNA  
 <213> Glycine max  
 <400> 247

gggagatctg attgttaaatt ttgttttgt tgccaattta gttttcagtt ggtgaatttt 60  
 gtaggtcaat ttagattatt atggcagttg ctttcgttat gatctgtatc attttcccat 120  
 cctgtatcta ccagtggtat tatgttgagc tgtaagttac ttgaatgtga agcatgtgaag 180  
 cattcgaatt cattgtttta ctctaatc tagttccaca tggtatgttt tt 232

<210> 248  
 <211> 82  
 <212> DNA  
 <213> Glycine max  
 <400> 248

ccatcctgta tctaccaggt gtattatgtt gagctgtaag ttacttgaat gtgaagcatg 60  
 taagcattcg aattcattgt tt 82

<210> 249  
 <211> 406  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 249

acgcccacgc gtccgtacgg ctgcgagaag acgacagaag ggggtgttgg atgaggcgaa 60  
 actcgagagt gtaaggtttt gcatttcatt tgacgaagag tgagagagtc ttatctgtcg 120  
 tctctgatct ctgatcgcat cttcattccg aaaatggctg tttcggctat cactggagcg 180  
 aggctaactc tagggatgtc tctttctct tccacgggat cacgaaccgt cgcaatggcc 240  
 gtatctatcg accccaagac cgataacana ctcaactotta ccaagtccga ggaagcttcc 300  
 gctgcgggcca aagagctgat gcctggaggc gtgaactccc cagttcgtgc cttcanatcc 360  
 gtgggtgggc anacaattgt gattgattca gtcaaagggt ctcgta 406

<210> 250  
 <211> 305  
 <212> DNA  
 <213> Glycine max

<400> 250

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cccacgcgtc cgtacggctg cgagaagacg acagaagggg gagagtgtaa ggttttgcat    60
ttcatttgac gaagagtgag agagtcttat ctgtcgtctc tgatctctga tcgcatcttc    120
attccgaaaa tggctgtttc ggctatcact ggagcggaggc taactctagg gatgtctctt    180
tcctcttcca cgcgatcacg aaccgtcgca atggccgtat ctatcgaccc caagaccgat    240
aacaaactca ctcttaccaa gtccgaggaa gctttcgctg cggccaagga gctgatgcct    300
ggaggg                                           305
  
```

<210> 251  
 <211> 296  
 <212> DNA  
 <213> Glycine max

<400> 251

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gaaactcgag agtgtaaggt tttgcatttc atttgacgaa gagtgagaga gtcttatctg    60
tcgtctctga tctctgatcg catcttcatt ccgaaaatgg ctgtttcggc tatcactgga    120
gcgaggctaa ctctagggat gtctctttcc tcttccacgc gatcaacaac acaagcaatg    180
gccgtatcta tcgaccccaa gaccgataac aaactcactc ttaccaagtc cgaggaagct    240
ttcgtcgcgg ccaaggagct gatgcctgga ggcgtgaact cccagttcg tgcctt      296
  
```

<210> 252  
 <211> 266  
 <212> DNA  
 <213> Glycine max

<400> 252

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ctgcgagaag acgacagaag ggggagagtg taaggttttg catttcattt gacgaagagt    60
gagagagtct tatctgtcgt ctctgatctc tgatcgcate ttcattccga aaatggctgt    120
ttcggctatc actggagcga ggctaactct agggatgtct ctttctcttt ccacgcgatc    180
acgaaccgtc gcaatggccg tatctatcga cccaagacc gataacaaac tcactcttac    240
  
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caagtccgag gaagctttcg ctgcgg

266

<210> 253

<211> 293

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 253

ggttttgcat ttcatttgac gaagagtgag agagtcttat ctgtcgtctc tgatctctga 60

tcgcatcttc attccgaaaa tgggtgtttcg gctatcactg gagcgaggta actctagggga 120

tgtctctttc ctcttccacg cgatcacgaa ctgaagcaat ggccgtatct atcgacccca 180

agaccgataa caaacncatc ttaccaagtt cgaggaagtt tcgctgcggc caaggagtga 240

tgctggaggc gtgaactccc cagttcgtgc cttcaaatcc gtgggtgggc aac 293

<210> 254

<211> 273

<212> DNA

<213> Glycine max

<400> 254

gttggagagg cgaaactcga gagtgtgaagg ttttgcattt catttgacga agagtgagag 60

agtcttatct gtcgtctctg atctctgate gcattctcat tccgaaaatg gctgttttcgg 120

ctatcactgg agcgaggcta actctagggga tgtctctttc ctcttccacg cgatcacgaa 180

tccccgcaat ggccgtatct atcgacccca agaccgataa caaactcact cttaccaagt 240

ccgaggaagc tttcgtgctg gccaaaggagc tga 273

<210> 255

<211> 267

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 255

gggcgaaact cgagagtgtga aggttttgca tttcatttga cgaagagtga gagagtctta 60

tctgtcncct ctgatctctg atcgnatctn cattccgaan atggctgttt cggctatcac 120

tggnncgagg ctaactctan ggatgtcnct ntncctctcc angngatcac gcnnntnnncg 180

naanggacgn anctatcgac cccaagacng ataacaaatn actctnacca ngtcgngga 240

agctttcgct gcggccaagg agtnat 267

<210> 256

<211> 254

<212> DNA

<213> Glycine max

<400> 256

ggcgaaactc gagagtgtaa ggttttgcatt ttcatttgac gaagagtggag agagtcttat 60

ctgtcgtctc tgatctctga tcgcatcttc attccgaaaa tggctgtttc ggctatcact 120

ggagcgaggc taactctagg gatgtctctt tctctttcca cgcgatcacg aacccatgca 180

atggccgtat ctatcgaccc caagaccgat acaaaactca ctcttaccaa gtccgaggaa 240

gctttcgctg cggc 254

<210> 257

<211> 254

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 257

gttggatgag gcgaaactcg agagtgtgag gttttgcatt tcatttgacg aagagtgaga 60

gagtcttata tgctgtctct gatctctgat cgcattctca ttccgaaaat ggctgattcg 120

gctatcactg gagcgccgtt aactctaggg atgtcttctt cctcgtgcag gcgacctcga 180

acgctggnaa tggccgtatc tatcgacccc aagaccgata acaaaactcac tcttaccaag 240

tccgaggaag cttt 254

<210> 258

<211> 270

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 258

aggttttgca tttcatttga cgaagagtga gagagtctta tctgtcgnnt ctgatntntg 60

atcgcatctt cattccgaaa atggcngttt cggctatcac tggagcgagg ctaagtntag 120

ggatgtctct ttacctnttc cacgcatca cgaaccacac gcaatggccg tatctatcga 180  
cccnaagacc gctaacaaan tcantctnac caagttccga ggaagntttg gnngcggggcc 240  
aagggagtga tgcttgagg cgtgaactcc 270

<210> 259  
<211> 165  
<212> DNA  
<213> Glycine max

<400> 259

ggcgaaactc gagagtgtaa ggttttgcatt ttcatttgac gaagagtgag agagtcttat 60  
ctgtcgtctc tgatctctga tcgcatcttc attccgaaaa tggctgtttc ggctatcact 120  
ggagcgaggc taactctagg gatgtctctt tctctttcca caca 165

<210> 260  
<211> 161  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<400> 260

cgaaactcga gagtgtgaagg ttttgcattt catttgacga agagtgagan agtcttatct 60  
gtcgtctctg atctctgatc gcattctcat tcccgaaaat ggctgtttcg gctatcactg 120  
gagcgaggct aactctaggg atgtctcttt cctctttcac a 161

<210> 261  
<211> 153  
<212> DNA  
<213> Glycine max

<400> 261

aaggttttgc atttcatttg acgaagagtg agagagtctt atctgtcgtc tctgatctct 60  
gatcgcatct tcattccgaa aatggctgtt tcggctatca ctggagcgag gctaactcta 120  
gggatgtctc tttcctcttc cacacaacat acg 153

<210> 262  
<211> 241  
<212> DNA

<213> Glycine max  
 <400> 262

cttcatttga cgaagagtga gagagtctta tctgtcgtct ctgatctctg atcgcatctt 60  
 cattccgaaa atggctgttt cggctatcag tggagcgagg ctaactctag ggatgtctct 120  
 ttctgtttcc acgcgatgta taagatgatg gatggccgca tctatcgacc tctagacagc 180  
 taagatactc agtcttagga ggtccgagga agctttcgtc gtggccaagg attgatgtcc 240  
 a 241

<210> 263  
 <211> 130  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 263

gcgaaactcg agagtgttaag gttttgcatn tcatttgacg aagagtgaga gagtcttctc 60  
 tgctcgnntct gatctctgat cgcattcttca ttccgaaaat ggctgttttcg gctatcactg 120  
 gagcgaggct 130

<210> 264  
 <211> 169  
 <212> DNA  
 <213> Glycine max

<400> 264

cgctcgagcg aatcggctca cggctcgagg ttttgcatth actttgacga agagtgcga 60  
 gagtcttctc tgctcgtctct gatctctgat cgcattcttca ttccgaaaat ggctgttttcg 120  
 gctatcactg gagcgaggct aactctaggg atgtctcttt cctcttcca 169

<210> 265  
 <211> 181  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 265

gcgaaactcg anagtgttaag gnttngcatt ncanttgacg aagagtgaga gagtctnctc 60



tgctcngctc tgatntnnga tgcacntc attccganaa tggctgtttc ggctatcact 120  
ggagcgaggc taactctagg gangtctctn nctcttcca cacaacatac gagnntctc 180  
g 181

<210> 266  
<211> 342  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<400> 266

anacactgnt aaagtgaaga nggtgaatgg agatgtgtct gagaacaaca aaggaggnag 60  
caaaccttca gcagaaatag atcttccaga tgctgaagtt ggaaaagttc gcttgcgatt 120  
tgcacctgaa ccaagtgggtt atcttcatat tggacactca aaagcagctt tgttgaacaa 180  
tattttgctg agcgatacca gggtcagggtt attgtncgnt ctgatgatan caatcctgct 240  
aaagagagca atgaatttgt ggacaacctg attaaagata ttgatacatt gggcatcana 300  
tatgaacaaa ttacatatac atcagattac ttccctgagt tg 342

<210> 267  
<211> 290  
<212> DNA  
<213> Glycine max  
<400> 267

agctgccgga gataaagcta caacatatac taaaaggata tggcttgacc ttgctgatgc 60  
agtgtcttta tcagcaggtg aggaagtaac attgatggat tggggaaatg ccatagtgaa 120  
ggaaatagag aaggaccaag atggaaatat catagggttg agtggtgttt tgcatctaga 180  
aggatctgtg aagaccacaa aattgaaact cacttggcta cctgagatag atgaactagt 240  
tagcctgaca ttagtggagt ttgattatct aattacaaag aaaaagcttg 290

<210> 268  
<211> 248  
<212> DNA  
<213> Glycine max  
<400> 268

tcggaattca gcgcgagggg tagcaatcct gctaaagtaa gcaatgaatt tgtggacaac 60

cttatttaaag atggtgatac attgggtatc aaatatgaac aaatgacata tacgtcagag 120  
tacttccctg agttgatgga gatggctgaa aaattaattc gccagggtaa agcatatggt 180  
gatgacacac cacgtgaaca aatgcaaaaa gagagattgg atggcataga ttctaaatgc 240  
agaaataa 248

<210> 269  
<211> 258  
<212> DNA  
<213> Glycine max

<400> 269

ggcattgttg tgtggcggca cgccatggtc gaaggttact atttcacat tttccaccac 60  
tcccacaccc ctgcacactt cttcttccaa cgacgccgtt tctcagtctc tgctgctttc 120  
tccgaacaac aaccaccgcc acccgttcgc gttcggttgc ctcttctcc caccggaac 180  
ctccacgtcg gcggtgcccg aacggccctc ttcaactact tgttcgcaag gtccaaaggt 240  
gggaaatttg tgctgaga 258

<210> 270  
<211> 267  
<212> DNA  
<213> Glycine max

<400> 270

actgagtaga tggagatgga tgaaaaatta gttcgccagg gaaaagcata tgttgatgac 60  
atagcacgtg aacaaatgca aaaagagaga atggatggca tagattctaa atgcagaaat 120  
aatagtgtag aggagaatct aaaattgtgg aaggaaatgt tggcaggaac agagaggggg 180  
ttgcagtgtt gtgtccgtgg caagttggat atgcaggacc caaacaatc acttagagat 240  
cctgtttatt atcgttgcaa tccaatg 267

<210> 271  
<211> 245  
<212> DNA  
<213> Glycine max

<400> 271

tgatgcacga tttcctacag tgcaaggaat tgtgcgtaga ggtttgaaaa ttgaagccct 60

gatacagttt attgttgagc agggggcgctc caaaaatctc aatctcatgg aatgggacaa 120  
gctctggacc attaataaga agattattga ccctgtctgt cctagacaca ctgctgtcat 180  
tgcagacaga cgtgttttgt tgactctcac tgatggctct gagtatacct ttgtccgcat 240  
catac 245

<210> 272  
<211> 280  
<212> DNA  
<213> Glycine max

<400> 272

attgcaggaa cagagagggg cttgcagtgt tgtgtccgtg gcaagttgga tatgcaggac 60  
ccaaacaaat cacttagaga tcctgtttat tatcgttgca atccaatgcc ccatcataga 120  
attggatcca agtataaagt gtatccaact tatgattttg cttgtccata tgttgattct 180  
atagaaggaa tcacgcatgc ctttcgatct agtgaatacc atgatcgcaa tgcccagtat 240  
tactggattc aagaggacat gggctctaga aaagttctta 280

<210> 273  
<211> 276  
<212> DNA  
<213> Glycine max

<400> 273

aggttgagtg gtgttttgca tcttgaagga tctgtgaaga ccacaaaatt gaaactcact 60  
tggctacctg agatagatga actagttagc ctgacattag tggagtttga ttatctaatt 120  
acaaagaaaa agcttgaaga agggaggatt tcattgatgt ggttaacca tgtaccaaaa 180  
aggagacttt agcttatgga gactccaaca tgcgaaatct tcagcgtgga gatttattgc 240  
aactggagag aaagggatat ttcagggtgtg atttac 276

<210> 274  
<211> 283  
<212> DNA  
<213> Glycine max

<400> 274

agcaggtatt cgtgctgagt cagattctag agataattat tctcctggat ggaagtattc 60

caactgggaa atgaaagggg ttctcttaag aattgaaatt gggccaaagg atttagcaaa 120  
 taagcaggtc atcaactttg ccagtgtttt atcaattctc atatttgtca ttttgcttcc 180  
 aactgttag tttttcagtg aacaccaa ataatctctt gaattttgca taggttcgca 240  
 ctgttcgacg tgataatggt gcaaagatag acattgctag tgc 283

<210> 275  
 <211> 403  
 <212> DNA  
 <213> Glycine max  
 <400> 275

caaaaccatt tgcgttgctg cagtcgcagt caaaggccaa ggcaaaaccc taaattgtct 60  
 cacactttcg tcggaatccg cttttggctt tttccgtgac aagatgccgg cgaaggacga 120  
 cggctccgac aaggagaagt gccttgatct ctttctgaaa atcggccttag acgagcgcac 180  
 cgctaaaaac accgtcgcaa acaacaaagt caccgccaat cttactgcag tcactctacga 240  
 ggccggtgtt attgatggat gcagccgagc gggttgaaat cttctttaca cggttgcaac 300  
 gaagtaccct gcaaatgcct tgccacatcg cccaacattg ctacagtaca ttgtctcggt 360  
 aaggtgaaaa caactgcaca gttagatgca gcattatcat ttc 403

<210> 276  
 <211> 445  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <400> 276

gagaaaatgg cgctgctgtg angcgggtgc catggnacga aggtnaatag tgnctctaca 60  
 tgtnnaatc aatcntaaca ccccnaggna cntnnttatt cnaangacgc aagtttctna 120  
 atctctgatg tctttagaac aacgnaacat ccgctcgnag tcgttttgct ncttctacaa 180  
 cggaaacctt acatatcggc atgttccacg aacgggccct ctnnaactac ttgttcgnaa 240  
 ggtccaaang tggaaaattt gtgctgaata attgaggaca ctgacttgga naggtccagt 300  
 agggagttat gaggaggcca atgctcaaag atctttcttg gcttggactt gattgggatn 360  
 aaggncctgg tgttgaacgg gattatggcc ttatangcag tctgagagga attcttatcc 420

aaccaatntc nggaaaacct acanc

445

<210> 277

<211> 277

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 277

gtttattatc gttgcaatcc aatgcncat catagaattg gatccaagta taaagtgtat 60

ccaacttatg attttgcttg tccatatgtt gattctatag aaggaatcac gcatgccctt 120

cgatctagtg aancccatga ttgcaatgcc cagtattact ggattcaaga ggacatgggt 180

cttagaaaag ttcttatcta cgaatttagc cggtnccaat atgggtctaca ctcttctgag 240

caaacgaaag cttttgtggt ttgtacaaaa tgggaaa 277

<210> 278

<211> 255

<212> DNA

<213> Glycine max

<400> 278

agattctaga gataattatt ctcttggatg gaagtattct aattgggaaa tgaaaggtgt 60

tcctctaaga attgaaattg ggccaaagga tttagcaaata aagcaggttc gtgctgttcg 120

acgtgataat ggagcaaaga tagcattgct agtgctgatt tggttgtgga aataaaaaag 180

ttgcttgata ctattcaaca gaacctgttt gatgttgcaa aacaaaaacg agatgaatgc 240

attcagatca tacac 255

<210> 279

<211> 258

<212> DNA

<213> Glycine max

<400> 279

agattctaga gataattatt ctcttggatg gaagtattct aattgggaaa tgaaaggtgt 60

tcctctaaga attgaaattg ggccaaagga tttagcaaata aagcaggttc gtgctgttcg 120

acgtgataat ggagcaaaga tagacatgct agtgctgatt tggttgtgga aataaaaaag 180

ttgcttgata ctattcaaca gaacctgttt gatgttgcaa aacaaaaacg agatgaatgc 240

attcagatca tacacact 258

<210> 280  
 <211> 265  
 <212> DNA  
 <213> Glycine max

<400> 280

agattctaga gataattatt ctcttggatg gaagtattct aattgggaaa tgaaaggtgt 60  
 tcctctaaga attgaaattg ggccaaagga tttagcaa at aagcaggttc gtgctgttcg 120  
 acgtgataat ggagcaaaga tagacattgc agtgctgatt tggttgtgga aataaaaaag 180  
 ttgcttgata ctattcaaca gaacctgttt gatgttgcaa aacaaaaacg agatgaatgc 240  
 attcagatca tacacacttg ggatg 265

<210> 281  
 <211> 264  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 281

tcctgctaaa gaaagcaatg aatttgtgga caaccttatt aaagatattg atacattggg 60  
 tatcaa at gaacaaatta catatacgtc agattacttc cctgagttga tggagatggc 120  
 tgaaaaatta attcgccagg gtaaagcata tgttgatgac acaccacgtg aacaaatgcn 180  
 aaaagagaga atggatggca tagattctaa atgcagaa at aatagtgtag aggagaatct 240  
 aaaattgtgg aaggnaatga ttgc 264

<210> 282  
 <211> 263  
 <212> DNA  
 <213> Glycine max

<400> 282

cctgattaaa gatattgata cattgggcat caaatatgaa caaattacat atacatcaga 60  
 ttacttcct gagttgatgg aaatggctga aaaattaatt cgcgagggtg aaacatatgt 120  
 tgatgacact ccacgtgaac aaatgcaaaa agagagaatg gatggcatag aatctaaatg 180

cagaaataat atagtagagg agaatctaaa actgtggaag gaaatgattg caggaacaga 240  
gaggggattg cagtgttggtg tcc 263

<210> 283  
<211> 267  
<212> DNA  
<213> Glycine max

<400> 283

ttgggcatca aatatgaaca aattacatat acatcagatt acttcctga gttgatggaa 60  
atggctgaaa aattaattcg cgagggtaaa acatatgttg atgacactcc acgtgaacaa 120  
atgcaacaag agagaatgga tggcatagaa tctaaatgca gaaataatat agtagaggag 180  
aatctaaaac tgtggaagga aatgattgca ggaacagaga ggggattgca gtgttggtgc 240  
cgtggcaagt tggatatgca ggaccca 267

<210> 284  
<211> 269  
<212> DNA  
<213> Glycine max

<400> 284

atgggagttc agcaaacca ctccattcat caggagtcgc gagtttcttt ggcaagaagg 60  
gcacactgct tttgcaacaa aggatgaagc agatgcagag gttcttgaga ttctggaatt 120  
atatagggct atatacgaag agatttggca gttcctgtca taaagggtaa gaaaagttag 180  
cttgagaagt ttgctggtgg actctacact accagtgttg aggcatttat tccaaacact 240  
ggtcgtggta tccaagggtc aacttctca 269

<210> 285  
<211> 422  
<212> DNA  
<213> Glycine max

<400> 285

gtccaaacgg cagcgagaag acgacagaag gggtcagatg ggagttcagc aacccactc 60  
cattcatcag gagtcgtgag tttctttggc aagaaggga cactgctttt gttcaaagg 120  
aggaagcaga tgcagaggtt cttgagattc tggaattata taggcgtata tacgaagagt 180

atttggcagt tcctgtcata aagggtaaga aaagtgagct tgagaagttt gctggtggac 240  
 tctacactac tagtggttag gcatttatcc caaacactgg tcgtggtata caaggtgcaa 300  
 cttctcattg tttgggcca aattttgcta aaatggttga gataaacttt gaaaatgaaa 360  
 agggagagag agcaatggtc tggcagaatt catgggccta tagtactcga actatcggtg 420  
 tc 422

<210> 286  
 <211> 240  
 <212> DNA  
 <213> Glycine max

<400> 286

aaattatata ggcgtatata cgaagagtat ttggcagttc ctgtcataaa gggtaagaaa 60  
 agtgagcttg agaagtttgc tgggtggactc tacactacca gtgttgaggc atttattcca 120  
 aacactgggtg tggatatcaa ggtgcaactt ctcatgtttt gggccaaaat tttgctaaaa 180  
 tgtttgagat aaactttgaa aatgaaaagg gagagaaagc aatggtctgg cagaattcat 240

<210> 287  
 <211> 378  
 <212> DNA  
 <213> Glycine max

<400> 287

ggaggctaca atttttgagc tacgttatcg aacaaatgtg ggtgagttgc ttgggcgtgt 60  
 gcgcaaagag ctgccatggg gtgatgcaaa agttgccaa caacttggtg atgcgcaact 120  
 atatgaacta cttggtgata ggacagcagc agatgatgaa aagccttcta gaaagaagaa 180  
 ggagaaacct gctaaagtag aggataaggc agctcctgtt tctacccttg aaaagtcacc 240  
 tgaagaagac gttaatccat ttttaatat ccctaatacca gaggaaaatt tcaaggtgca 300  
 tactgaagtg ccttttagtg atggtagtat tttgagatgt tgcaatacaa gagatctgct 360  
 tgacaaacac ttaaaagc 378

<210> 288  
 <211> 269  
 <212> DNA  
 <213> Glycine max



<400> 288

aacaaatgca aaaagagaga atggatggca tagaatctaa atgcagaaat aatatagtag 60  
aggagaatct aaaactgtgg aaggaaatga ttgcaggaac agagagggga ttgcagtgtt 120  
gtgtccgtgg caagttggat atgcaggacc caaacaatc acttagagat cctgtatatt 180  
atcgttgcaa tccaatgccc catcatagaa ttggatccaa gtataaagtg tatccaactt 240  
atgatttcgc ttgtccatat gttgatgct 269

<210> 289

<211> 258

<212> DNA

<213> Glycine max

<400> 289

aacaaatgca aaaagagaga atggatggca tagaatctaa atgcagaaat aatatagtag 60  
aggagaatct aaaactgtgg aaggaaatga ttgcaggaac agagagggga ttgcagtgtt 120  
gtgtccgtgg caagttggat atgcaggacc caaacaatc acttagagat cctgtatatt 180  
atcgttgcaa tccaatgccc catcatagaa ttggatccaa gtataaagtg tatccaactt 240  
atgatttcgc ttgtccat 258

<210> 290

<211> 251

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 290

aggcgatctc gggtgggaag cggggaagat ggggaagctt gtaattaagc atttggctgc 60  
caacncggtg cagaagaatg gttgttggtta acaggactga agagaaagt aatgccattc 120  
ggaaagagtt gaaggatggt gagattgtat ttagaccatt ttcagatatg ctggcgtgtg 180  
ctgctgaagc tgatgtgatc ttcaccagca cagcgtctga atcaccatgt tctctaaaca 240  
gaatgtgcag a 251

<210> 291

<211> 240

<212> DNA

<213> Glycine max

<400> 291

atttgcata ggc tgaacat tcacactgct cccgttgaga tgcgtgagaa gcttgcaatt 60  
ccagaatccc attggggtca ggctattaag gacctttgcg ctttgaacca tatcgaagaa 120  
gccgcgggttc tcagcacgtg taaccgcatg gagatctatg ttgtggctct tccccagcac 180  
cgtgggtgtta aggaagttac tgattggatg tctaaggatga gcgggatttc aatacctgag 240

<210> 292

<211> 275

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 292

aggaagcagc tgttctgagc acctgcaaca gaatggaaat atatgttggt gctctgtcca 60  
agcaccgtgg tgttaaagaa gtcactgaat ggatgtccaa aacangtggg attccagttg 120  
cagatctttg ccagcatcag tttctgctat acaacaaaga tgccacacaa cacctttttg 180  
aagtatctgc aggtcttgat tctctagtgt tgggagaagg tcaatccttg cccaggtgan 240  
gcaggttgct aatttggaca aggnntaang ncttc 275

<210> 293

<211> 276

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 293

ggtaagaact tgagacaaaa cattgctgct ggtgcagtan ncnnnnagtt catcaactgt 60  
antncnggga cntnattnag gctaccngaa gnctcacatg ncatgcaagg ntgttggtca 120  
ttggagctgg gnagatcgga agcttgatgat caagcatttn gtggcaaaaag ggtgcacaaa 180  
gatggtggtt gtcataagat gangagagag ttgccgcat cctgaagaa atcaagatgt 240  
tgagataatc tacaagccac tctcggagat gctcac 276

<210> 294

<211> 271

<212> DNA

<213> Glycine max

<400> 294

ctcgagcgga ataagctact tcatgggtccc atgcagcacc taaggtgtga tgggaacaat 60

gatagtagtc tgagtgaagt acttgagaat atgcgcgccc ttaacagaat gtatgatctt 120

gagacagaaa cttccttgat cgaagaaaag atcagagtca agatggaacg gggttcagaag 180

tagattcttc ttcaattggg ttagttttac ttgattactg tgggggctgc aatcctcgcc 240

attttgtaca ctacagtagt tgattgaggc c 271

<210> 295

<211> 130

<212> DNA

<213> Glycine max

<400> 295

ggcaatcatt gctgaagaat ctaagcaatt tgaagcttgg agggactcgc tggaaactgt 60

tcctactatt aagaaattga gggcttatgc tgaaagaatc aggcttgctg agcttgagaa 120

gtgcttaggt 130

<210> 296

<211> 426

<212> DNA

<213> Glycine max

<400> 296

cccacgcgtc cgaacatttg gtggcaaaaag gttgcaaaaa gatgggtggtt gtcaatagaa 60

ctgatgagag agttgctgca atacgtgaag aactgaagga tattgagatt atctacaaac 120

ccctttcaga aatgctcacc tgtgctggcg aagcagatctt agttttcacc agtactgcat 180

cagaaaaccc attattcttg aaagaacatg tcaaggacct tcctcctgca agtcaagaag 240

ttggaggccg tcgctttttc attgatatct ctgttccccg gaatgtgggt tcatgtgtct 300

cagaccttga gtctgtgcca gtttacaatg ttgacgacct taaagagggt gtggctgcca 360

ataaagagga tcgcctaaga aaagcaatgg acgcacaggc aatcattgct gaaaaatcta 420

agcaat 426

<210> 297

<211> 271

<212> DNA  
 <213> Glycine max  
 <400> 297  
 aggataggct aagaagagcc atggaggctc aagcaatcat tggatgaagaa tcaaaacaat 60  
 ttgaggcttg gagagactca ttggaaactg ttcctaccat taaaagttg agggcatatg 120  
 ctgaaagaat aaggcttgct gagcttgaga agtgcctagg taagatgggt gatgatatca 180  
 acaagaagac acaaagagct gtggatgac ttagcagggg tatagtgaat aagttgcttc 240  
 atggggccaat gcaacacttg aggtgtgatg g 271

<210> 298  
 <211> 266  
 <212> DNA  
 <213> Glycine max  
 <400> 298  
 agaaaagcca tggaggctca agcaatcatt ggtgaagaat caaaacaatt tgaggcttgg 60  
 agagactcat ttgaaactgt tcctaccatt aaaaagttga gggcatatgc tgaaagaata 120  
 aggcttgctg agcttgagaa gtgcctagggt aagatgggtg atgatatcaa caagaagaca 180  
 caaagagctg ttgatgatct tagcaggggt atagtgaata agttggcttc atggggccaat 240  
 gcaacacttg agtgtgatgg cagtga 266

<210> 299  
 <211> 289  
 <212> DNA  
 <213> Glycine max  
 <400> 299  
 cacaattctc ccttcaaagt ttcaatggct gtttcaacca gcttctcggg tgtaaagttg 60  
 gaggctttgt tgctgaaatg tggttcctcc aatgctgcc aaccaccac tcatatatca 120  
 tgttttgga aaaacagaaa gacacttggt cagagtcaga gaggggctat tcgttgtag 180  
 gcttcttctg cttctgatgt tgtggctgat gccaccaaga aagctgctag tgtctctgct 240  
 cttgagcagc ttaagacctc tgcagctgat aggtatacaa aggaaagga 289

<210> 300  
 <211> 289

<212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 300  
  
 cacaattctc ccttcanagt ttcaatggct gtttcaacca gcttctcggg tgtaaagttg 60  
 gaggcctttgt tgctganatg tggttcctcc aatgctgcc aaccaccac tcatatatca 120  
 tgttttggca aaaacagaaa gacacttggt cagagtcaga gaggggctat tcgttgtgag 180  
 gcttctnctg cttctgatgt tgtggctgat gccaccaaga aagctgctan tgtctctgct 240  
 cttgagcagc ttaagacctc tgcagctgat aggtatacna aggaaagga 289

<210> 301  
 <211> 266  
 <212> DNA  
 <213> Glycine max  
  
 <400> 301  
  
 cagggcttga ctcaattggt cttggggaag gtcaaattct tgctcaggtg aagcaggttg 60  
 tgaaagctgg acagggagtg cctggttttg ataagaaaat cagtggtttg ttcaagcagg 120  
 cgatatcggg tgggaagcgg gttagaaccg agactaacat ttcattctga tcagtttctg 180  
 taagctcggc tgctgtggag cttgcactga tgaagctacc ggaaattacc tttgctgatt 240  
 ctggagtggt ggtgggttgg gctggg 266

<210> 302  
 <211> 275  
 <212> DNA  
 <213> Glycine max  
  
 <400> 302  
  
 cgcgcacatc tatttgaagt ggcgtcaggg cttgactcac ttgttcttgg ggaaggtcaa 60  
 attcttgctc aggtgaagca ggttgtgaaa gctggacagg gaggcctgg ttttgataag 120  
 aaaatcagtg gtttgttcaa gcaggcgata tcggttggga agcgggttag aaccgagact 180  
 aacatttcat ctggatcagt ttctgtaagc tcggctgctg tggagctgca ctgatgaagc 240  
 taccggattc ctcttttgcg gattctggag tgttg 275

<210> 303

<211> 288  
 <212> DNA  
 <213> Glycine max

<400> 303

cttgagcagc ttaagacctc tgcagctgat aggtatacaa aggaaaggag cagcatcatg 60  
 gttattggac tgagtgtgca tagtacacct gtggaaatgc gtgaaaaact tgccatacca 120  
 gaagcagaat ggccaagagc cattgcggag tttgtagtct gaatcatatt gaggaagcag 180  
 ctgttctgag cacctgcaac agaatggaga tatatgttgt tgctctgtcc aagcaccgcg 240  
 gtgtcaaaga agtcactgaa tggatgtcca aaacaagtgg gatccccg 288

<210> 304  
 <211> 299  
 <212> DNA  
 <213> Glycine max

<400> 304

agtgtgcata gtacacctgt ggaaatgcgt gaaaaacttg ccataccaga agcagaatgg 60  
 ccaagagcca ttgcggagtt ttagtctga atcatattga ggaagcagct gttctgagca 120  
 cctgcaacag aatggagata tatgttggtg ctcttccaag caccgcgttg tcaaagaagt 180  
 cactgaatgg atgtccaaaa caagtgggat cccggttgca gacctttgcc agcatcagtt 240  
 tctgctatac aacaaagatg cgacacagca cctttttgaa gtatctgctg gtcttgatt 299

<210> 305  
 <211> 260  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 305

gagcagcatc atggttattg gactgagtgt gcatagtaca cctgtggaaa tgcgtgaaaa 60  
 acttgccata ccagaagcag aatggccaag agccattgcg gagttttag tctgaatcat 120  
 attgaggaag cagcngttct gagcacctgc aacagaatgg agatatatgt ngttgctctg 180  
 tccangcacc gcggtgtcaa agnagtcact gaatggntgt ccaaaacaag tnggntcccc 240  
 gttgcagact ttgccagcat 260

<210> 306  
 <211> 440  
 <212> DNA  
 <213> Glycine max  
  
 <400> 306  
  
 gggttctcct gaatccgcaa tggccgtttc aaccactttc tccggtgcca aattggaggg 60  
 gctattgctc aaatgttctt cctcctcttc ctcaccaccg ctttcaaggt catcattcac 120  
 cacttttccc ggccaaaaca gaagaaccct cattcagaga ggggttattc gctgcgacgc 180  
 tcagccctct gatgcatcat ctgttgctcc aaataatgcc accgctctct cgcctcttga 240  
 gcagctcaag acttctgcag ctgatagata taaaaggaa agaagcagca ttatcgccat 300  
 tgggctcagt gtgcacactg cacctgtgga aatgcgtgaa aaacttgcca ttccagaagc 360  
 agaatggcct agagctattg cagagctgtg tagtctgaat catatttgag aagcagctgt 420  
 tctgagtacc ctgcatcgaa 440

<210> 307  
 <211> 272  
 <212> DNA  
 <213> Glycine max  
  
 <400> 307  
  
 ctgaaatcaa ggttgttgct ggtgaccctt ataactcaga cccacaagat ccagaattca 60  
 tgggtgttga agtcagagag cgtgtacttc caaggagagg aactttctgt tgtcttgacc 120  
 aaaattaaca tggttgattt gcattgggag ctacagaaga tagagtgtgt ggaacaattg 180  
 acattgagaa agccctgact gaggggtgtc aggcatttga gcctggacta tggctaaagc 240  
 taatagggga atctatatgt tgatgaagtt aa 272

<210> 308  
 <211> 254  
 <212> DNA  
 <213> Glycine max  
  
 <400> 308  
  
 gtcttacaac ggcttttagag ttggactaaa tgcggagaaa agtggtgacg ttggacgtat 60  
 aatgattggt gcaatcactg atggcagagc caatatatca ttgaaaaggt caactgaccc 120  
 tgaagctgcc gcagctactg atgccccaaa accttcagca caagaattga aggatgaaat 180

tcttgagggtg gccggaaaga tatataaagc aggaatgtct ctccttgtca tcgacactga 240  
aaataagttt gtct 254

<210> 309  
<211> 253  
<212> DNA  
<213> Glycine max

<400> 309

actttctgtt gtcttgacca aaattaacat ggttgatttg ccattgggag ctacagaaga 60  
tagagtgtgt ggaacgattg acattgagaa agccctgact gaggggtgtca aggcatttga 120  
gcctggacta ctggctaaag ctaatagggg aatcttatat gttgatgaag ttaatctttt 180  
ggatgatcac ttggtggatg tgttggttga ttctgctgcg gatggaacac agtagagaga 240  
gaggaattt cta 253

<210> 310  
<211> 253  
<212> DNA  
<213> Glycine max

<400> 310

tgttactctt aacagagaac aattaaaata cctggttatt gaagctttac ggggcggttg 60  
ccaggacat agagctgac tatttgctgc ccgtgttgca aagtgccttag ctgctttgga 120  
gggacgtgaa aaggtttatg tggatgacct aaaaaagct gtagaattgg tcattctacc 180  
ccggtcaatc gttactgaga acccaccaga tcaacaaaac cagcctcctc cccctccgcc 240  
tcctccacaa aat 253

<210> 311  
<211> 162  
<212> DNA  
<213> Glycine max

<400> 311

gcattgatgat ctccacatgt ctgtctgtca actaaaacac tattgcgttt catgatatat 60  
caaattgtga acatgctatg tgttaatggt tctttaaagc ataatccata gccccttatg 120  
tttáatcaaa ccaaattat gccctagttt tttttttttt gg 162



<210> 312  
 <211> 232  
 <212> DNA  
 <213> Glycine max  
  
 <400> 312  
  
 aaaaaagaac agagagagaa gaatgaaatc tatctatctt cttatccgaa gtctgggagg 60  
 ccaataggaa gcacgccagc tgctacgaat ggtgaataaa agacaaaaga aacaaactgc 120  
 tacatagcat acagtctgtc ttctcttctc ttctccggtt atggcggtccg ccttgggcac 180  
 ttcttcaatt gcggttctgc ctctcgctccta cttctcttct tcttcttcca ag 232

<210> 313  
 <211> 262  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 313  
  
 cacttaatcc aggctcagaa gattgctttt aacgagagcc agangccggt gtacccattt 60  
 tctgctatag tgggacacga tgagatgaag ctttgccttc tcctaaatgt aattnatccc 120  
 aagattggag gtgtaatgat catggggggac agaggaacgg ggaaatctac aactgttaga 180  
 tcattggtag atttgcttcc tgaatatcaag gttgttgctg gtgaccatat attcagaccc 240  
 agaggatcca gattcatggg tg 262

<210> 314  
 <211> 280  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 314  
  
 actctctcta acttcagggc agagctatgg gcggaaattt tatggaggaa ttggaattca 60  
 tggcatcaag ggaaggtctc agctctcagt tgccaatgtt gccactgaag ttaactctgt 120  
 agaacaggcc caaagtattg cttctaaaga aagccagagg ccagtatacc cattttctgc 180  
 catagtngga caagatgaga tgaagctttg tcttctcctt aatgtgattg atcctaagat 240  
 tggaggtgta atgatcaggg ggataggggc acagggaat 280

<210> 315  
 <211> 238  
 <212> DNA  
 <213> Glycine max

<400> 315

ttttgctcgg aatttcctgt gtagaaggaa ctcatgaatc ttattgatgt ttaacgacaa 60  
 tgaaaatctc cacagaaaag gtaaaatgta aataatgaag tagcattata ctcatggaat 120  
 accacagaat acaaaccgtg ttacatctat gatcctcagc tgaatacctc ataaaatttc 180  
 tcagtgcaca gtaaacctga gtctatagac tccaagggat cctttctaag acggtgtc 238

<210> 316  
 <211> 273  
 <212> DNA  
 <213> Glycine max

<400> 316

ttagggaagg gctcagctct cggttaccaa tgttgccact gaagttaact ctgtagaaca 60  
 ggctcagagt attgcttcta aagaaagcca gagggcagta taccattttt ctgccatagt 120  
 tggacaagat gagatgaagc tttgtcttct ccttaatgtg attgatccta agattggagg 180  
 tgtaatgata atgggggata ggggcacagg gaaatctaca acggtcaggt cattggttga 240  
 tttacttccc gaaatcaagg ttgttgctgg tga 273

<210> 317  
 <211> 283  
 <212> DNA  
 <213> Glycine max

<400> 317

agactcattg gatcggttga tgttgaggag tctgtgaaaa caggcacaac tgttttccag 60  
 ccaggccttg ttgcagaagc tcatagaggt gttttatatg ttgatgaaat taatcttttg 120  
 gatgagggtg tcagtaattt gtccttact gtattgagtg aaggagtaaa tactgttgaa 180  
 agagagggga tcagtttcaa gcacccttgc aggcccttc tcattgccac ctataacca 240  
 gaagaggggt ctgttcgtga acatctgctg gaccgcattg cga 283

<210> 318  
 <211> 173  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 318

gctcgaggcg ccgntcanac gacgagccgc gagtgcgtgg cggcgtggga cgaggtggag 60  
 gagctgagcg cggcggcgag ccacgccaaa tacaagctaa aggaaaagga ctccgacccg 120  
 ctcgagacct actgcaagga caatccggag accattgagt gcaaaacttt cga 173

<210> 319  
 <211> 263  
 <212> DNA  
 <213> Glycine max

<400> 319

aggaattccg agattcttac aaagccgagc aagagaagct ccaacaacaa attacatcag 60  
 caaggagtgt tctttcttct gttcagattg atcaagatct caaggtgaaa atctccaagg 120  
 tgtgtgctga gttgaatgtg gatggattaa gaggagacat agtaacaaat agagctgcaa 180  
 aagctcttgc tgctctgaag gaaagagaca aagtaagtgc agaggatatt gctactgtca 240  
 tccctaactg cttgagacac cgt 263

<210> 320  
 <211> 322  
 <212> DNA  
 <213> Glycine max

<400> 320

atagcttttg gagcaaaaac tgcacaaagc tcctcagtgc cccccaagtt ttcctttcaa 60  
 agcaattttg tgctttgctt tgaatgtctt ccttttcgat ccctacactt caatttgtag 120  
 caagaggaat ttgttgtttc ctacttagca tgattattta tcaatggcgt ctttggtatc 180  
 ttcagcattt actcttccaa gctctaaacc tgaccagctt caatcacttg ccccgaaaca 240  
 tctttttcat cagtcattcc ttcccaagaa agccaattac aatggtagct caaaatcctc 300  
 tctgaaaatt aaatgtgctg tc 322

<210> 321

<211> 410  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 321  
  
 cagtcattac tttgactcan accccgacta atctggntca gaatctaagg aaagatggga 60  
 agaagcctag tgcatacatt gctgatacaa ccacagccaa tgctcaggta cgtacactnt 120  
 ctgagacggt tagacttgac gcaagaacca agctgttgaa tccaaagtgg tatgaaggca 180  
 tgttgtctac tggatatgag ggtgtacgag agatcgagaa gagactcacc aatacagtgg 240  
 ggtggagtgc aacttcaggc caagttgata actgggtgta tgaagaagcc aacacaactt 300  
 tcattcaaga tgagcaaattg ctgaacaagc tcatgagcac taatccaaac tccttcagga 360  
 aactggtgca gacattcttg gaagccaatg gacgtgggta ttgggaaact 410

<210> 322  
 <211> 324  
 <212> DNA  
 <213> Glycine max  
  
 <400> 322  
  
 gaaaaataac acacatttga aactcaaact gaaatgggtg catagctttg gggcaaaaac 60  
 tacacaaaac tcctcattgc cccaagttt tttctttcaa agcaattttg cacttttttg 120  
 ctttcattgt cttcaatttg tagtaagagg aaattgttgt ttcctactta gcttgattat 180  
 tattatcaat ggcttcttta gtatcttcac aatttacact accaagttct aaacctgacc 240  
 agcttcattc tcttgctcag aagcatcttt ttctccactc tttccttccc aagaaggcca 300  
 attacaatgg tagcagctca aaat 324

<210> 323  
 <211> 340  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 323  
  
 gaagaagtaa tacatgacaa agaagctcaa tttagcagcc caaatctgaa cgttgcttac 60  
 aaaatgaatg tccgagaata ccaaagtcta actccctatg ccacagcatt agaagaaaac 120

tggggaaaac ctctctgggaa tctgaattca gatggagaga atctattggt atatgggaaa 180  
 caatatggta atgtattcat aggtgttcaa cccacatttg gctatgaagg cgatcctatg 240  
 cggttgcttt tctccaaatc tgcaagtcct catcatggat ttgcagcatn atactctttt 300  
 gtttgagaaa ttttcaaagc tgaagcggtt cttcattttg 340

<210> 324  
 <211> 264  
 <212> DNA  
 <213> Glycine max

<400> 324

ggccaagaac agaatgaaga ggaagaacaa gaggatgaca aggatgaaga gaatgaacaa 60  
 cagcaagaac aattacctga agagttttatc tttgatgctg aaggtggctt ggtagatgaa 120  
 aaactcctct tctttgccc acaagcacag agacgccgtg ggagggctgg aagggcaaaa 180  
 aatgttatat tttccgagga tagaggccga tacatcaagc ccatgcttcc aaagggccct 240  
 gtaaagagat tagctgtaga tgca 264

<210> 325  
 <211> 246  
 <212> DNA  
 <213> Glycine max

<400> 325

caaaatcaag aatcaggcga agaacagaat gaagaggaag aacaagagga tgacaaggat 60  
 gaagagaatg aacaacagca agaacaatta cctgaagagt ttatctttga tgctgaagggt 120  
 ggcttggttag atgaaaaact cctcttcttt gcccaacaag cacagagacg ccgtggggagg 180  
 gctggaaggg caaaaaatgt tatatcttcc gaggatagag gccgatacat caagcccatg 240  
 cttcca 246

<210> 326  
 <211> 264  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 326

cnagagcaga gaagantcag agaatggcaa ctatgactgg cgtgagcctt tcatgccccca 60

gggtttttctt caacgcatca ggctcaccgc aaaacgcgca tgcttattgt attttgtcca 120  
gcagattcta tgacttgaca ggactgcaga atggaattct gaagcgaggg agagagattt 180  
tcctcactgg ttgctacctc cgaactccca ctggagggttc tggacattca cgtcttttgc 240  
caacagagta tcttgtgatt ctat 264

<210> 327  
<211> 284  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<400> 327

cagagaagaa tcagagaatg gcaactatga ctgnngtgag cntttcatgc cccagggttt 60  
tcttcaacgc atcaggctca ccgcaaaacg cgcattgctta ttgtattttg tccagcagat 120  
tctatgactt gacaggactg cagaatggaa ttctgaagcg agggagagag attttctca 180  
cnngttgcta cctccgaact cccactggag gttctggaca ttcacgtctt ttgccaacag' 240  
agtatcttgt gattctattg gatgaagact tccagaagga aatt 284

<210> 328  
<211> 392  
<212> DNA  
<213> Glycine max  
<400> 328

ggccgatata tcaagcccat gcttccaaag ggccctgtaa agagattagc tgtagatgca 60  
acccttagag ctgctgcacc ttatcaaaaa ttgcgaaggg caaaagattc tggaaacaat 120  
agaaaggat tttgtggagaa aacggacatg agggcaaaga gaatggcacg taaggcagga 180  
gcattgggtga tatttgttgt tgatgcaagt ggaagcatgg cattgaacag gatgcagaat 240  
gcaaaagggtg cagcacttaa gcttctggct gaaagttata caagcaggga tcaggtatct 300  
ataattccat tccgtggaga tgcagctgaa gttctcctgc caccttctag atcaatttca 360  
atggcaagga aacgtcttga aaggcttcca tg 392

<210> 329  
<211> 274  
<212> DNA

<213> Glycine max

<400> 329

gtggagaaaa cggacatgag ggcaaagaga atggcacgta aggcaggagc attggtgata 60  
tttgttggtg atgcaagtgg aagcatggca ttgaacagga tgcagaatgc aaaaggtgca 120  
gcacttaagc ttctggctga aagttataca agcaggggatc aggtatctat aattccattc 180  
cgtggagatg cagctgaagt tctcctgcc ccttctagat caatttcaat ggcaaggaaa 240  
cgtcttgaaa ggcttccatg tgggtggaggt cccc 274

<210> 330

<211> 247

<212> DNA

<213> Glycine max

<400> 330

attagctgta gatgcaaccc ttagagctgc tgcaccttat caaaaattgc gaagggcaaa 60  
agattctgga aacaatagaa aggtatttgt ggagaaaacg gacatgaggg caaagagaat 120  
ggcacgtaag gcaggagcat tggatgatatt tgttgttgat gcaagtggaa gcatggcatt 180  
gaacaggatg cagaatgcaa aaggtgcagc acttaagctt ctggctgaaa gttatacaag 240  
cagggat 247

<210> 331

<211> 292

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<400> 331

tngagggcaa agagaatggc acgtaaggna ggancatcgg tgatatttgt ggttgatgca 60  
agtggaagca tggcattgaa caggatgcag aatgcaaaag gtgcagcact taagcttctg 120  
gctgaaagtt atacaagcag ggatcaggtc tctaaattcc attccgtgga gacgcagctg 180  
aagttcttct gccaccttct agatcaattg caancgnaag gaaacgtctt gagaggctcc 240  
atgtggtgga ggggtccccac ttgctcaggt ctacaacggc tgtagagtt gg 292

<210> 332

<211> 378

<212> DNA  
 <213> Glycine max  
  
 <400> 332  
  
 agacgggtgc gagaagacga cagaagggga taagtgccat aacacataaa cagaatggct 60  
 tccacgtttg ggcgatcttc aattaccttc ctctcttcac gatactactc gtctcaggcc 120  
 cttgccaccg attcaccctc tctaaccaca gtgcagatat ttgggcgcaa gttttgcgga 180  
 ggaagaaatg gatttcacag cgtcaagggg aggtctctgt tcgcggttgc gagtgttctt 240  
 gccactcaac ttaactctgc ataataggct cagaagattg cttttaccga gagccagagg 300  
 tcagtgtacc cattttcggc tatagttgga caggatgaaa tgaagctttg ctttctcta 360  
 aatgtgattg atcccaa 378

<210> 333  
 <211> 277  
 <212> DNA  
 <213> Glycine max  
  
 <400> 333  
  
 aaaaagaatg gcttccacgt ttggcgcac ttcaattacc ttctctctt cagatacta 60  
 ctcttcccaa tcccttgcca ccgattctc ctctctaacc acagtgcaga tatttgggcg 120  
 caagttttgc ggcggaggaa atggatttca cagcgtcaag ggaaggctc tgttcccggt 180  
 tgcgagtgtt cttgccactc aacttaactc tgcacaacag gtcagaaga ttgcttttac 240  
 cgagagccag aggccagtgt acccatttcg gctatag 277

<210> 334  
 <211> 256  
 <212> DNA  
 <213> Glycine max  
  
 <400> 334  
  
 taaaaagaat ggcttccacg tttggcgcac cttcaattac cttctctctt tcacgatact 60  
 tctcttccca atcccttgcc accgattctc cctctctaac cacagtgcag atatttgggc 120  
 gcaagttttg cggcggagga aatggatttc acagcgtcaa gggaaggctc ctgttcccg 180  
 ttgcgagtgt tcttgccact caacttaact ctgcacaaca ggctcagaag attgctttta 240  
 ccgagagcca gaggcc 256



<210> 335  
 <211> 396  
 <212> DNA  
 <213> Glycine max

<400> 335

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ggcaactatg actggtgtga gcctttcatg cccaggggtt ttcttcaacg catcagcctc   60
accgcaaaac ggcgatgctg taaagttctc atttccaccc agccaagcag tgcgaccggg  120
tagtatcaag ttgggtcgcg tgatgaggat ccgaccggtt cgcgctgcgc ctgagcgcat  180
atcggagaag gtggaggaga gcataaagaa cgcgcaggag gcgtgcgccg gcgatccgac  240
gagcggcgag tgcgtggcgg cgtgggacga ggtggaggag ctgagcgcgg cggcgagcca  300
cgccagggac aagcaaaagg aaaaggactc cgaccgcctc gagaattact gcaaggacaa  360
cccgagagacc attgagtgca aaactttcga agactg                               396
  
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<210> 336  
 <211> 356  
 <212> DNA  
 <213> Glycine max

<400> 336

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gagaatggca actatgactg gtgtgagcct ttcattgccc aggggtggtct tcaacgcatg   60
agcctcaccg cataacgcgc atgctgtaaa gttctcactt ccaccagcc aagcagtgcg  120
accgggtagt atcaagttgg gtcgctgat gaggatccga cccgttcgcg ctgcgcctga  180
gcgcatatcg gagaaggtgg aggagagcat aaagaacgcg caggaggcgt gcgccgacga  240
tccgacgagc ggcgagtgcg tgacggcgtg ggacgaggtg gaggagctga gcgcggcgcc  300
tagccacgcc agggacacgc aaatggtaat ggacttcgac ccgctcgaga attact       356
  
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<210> 337  
 <211> 273  
 <212> DNA  
 <213> Glycine max

<400> 337

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agaatggcaa ctatgactgg tgtgagcctt tcatgcccc gggttttctt caacgcatca   60
gcctcaccgc aaaacgcgca tgctgtaaag ttctcacttc caccagcca agcagtgcga  120
  
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ccgggtagta tcaagttggg tcgctgatg aggatccgac ccgttcgcgc tgcgcctgag 180  
 cgcatatcgg agaaggtgga ggagagcata aagaacgcgc aggaggcgtg cgccggcgat 240  
 ccgacgagcg gcgagtgcgt ggcggcgtgg gac 273

<210> 338  
 <211> 272  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <400> 338

aagaatcaga gaatggcaac tatgactggt gtgagccttt catgccccag ggttttcttc 60  
 aacgcatacag cctcaccgca aaacgcgcac gctgtaaagt tctcacttcc acccagccaa 120  
 gcagtnccgac ccggtagtat caagttgggt ccgctgatga ggatccgacc ccgttcgcgc 180  
 gcgcctgagc gcatatcggg gaaggtggag gagagcataa aagaacgcgc ggaggcgtgc 240  
 gccggcgatc cgacgagcgg cgagtgcgtg gc 272

<210> 339  
 <211> 273  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <400> 339

gaatcagaga atggcaacta tgactggtgt gagcctttca tgccccaggg ttttcttcaa 60  
 cgcatacagc tcaccgcaaa acgcgcacgc tgtaaagtgc tcacttccac ccagccaagc 120  
 agtccgaccg ggtagtatca agttgggtcg cgtgatgagg atccgaccg ttcgngtgcg 180  
 cctgagcgca tatcggagaa ggtggaggag agcataaaga acgcgcagga ggcgtgcgcc 240  
 ggcgatccga cgagcggcga gtgcgtggcg gcg 273

<210> 340  
 <211> 253  
 <212> DNA  
 <213> Glycine max  
 <400> 340

cagagaatgg caactatgac tgggtgtgagc ctttcatgcc ccagggtttt cttcaacgca 60

tcagcctcac cgcaaaacgc gcatgctgta aagttctcac ttccaccag ccaagcagtg 120  
cgaccgggta gtatcaagtt gggtcgctg atgaggatcc gaccggttcg cgctgcgcct 180  
gagcgcatat cggagaaggt ggaggagagc ataaagaacg cgcaggaggc gtgcgccggc 240  
gatccgacga gcg 253

<210> 341  
<211> 283  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<400> 341

gtaactatga ctggtgtgag cctttcatgc cccagggttt tcttcaacgc atcagcctca 60  
ctgnaaaacg cgcatgatgt aaagttctca cttccacaca gcatagaagg tggatcgggt 120  
agtatcaagt tgggtcgcgt gatgaggatc cgagccgttc gcgctgcgcc tgagcgcata 180  
tcggagaagg tggaggagag catacagaac gcgcaggagg cgtgcgccgg cgatcagttg 240  
agcggcgagt gcgtggcggc gtgggacgat gtggaggagc tga 283

<210> 342  
<211> 251  
<212> DNA  
<213> Glycine max  
<400> 342

gagaatggca actatgactg gtgtgagcct ttcatgcccc agggttttct tcaacgcac 60  
agcctcaccg caaaacgcgc atgctgtaaa gttctcactt ccaccagcc aagcagtgag 120  
accgggtagt atcaagttgg gtcgcgtgat gaggatccga cccgttcgcg ctgcgcctga 180  
gcgcatatcg gagaaggtgg gagagcataa agaacgcgcg gaggctgcgc ggcgatccga 240  
cgagcggcga t 251

<210> 343  
<211> 271  
<212> DNA  
<213> Glycine max  
<400> 343

aaacccccctc cagagaacaa gaatcaaaga atggcaacta tgactggtgt gagcctttca 60  
agccccaggg ttttcttcaa cgcattcacc tcaccgcaaa acacgtacgc cgtaaagtgc 120  
gcagttccac tcagccaagg gatgcgactt ggtagtgtca ggttgggtcg ggtgatgagg 180  
atccgacccg ttcgcgcagt ccagagcgca tttcggagaa ggtggaggag agcataaaga 240  
acgcgcagga ggcggtgcgc gccgacccga c 271

<210> 344  
<211> 257  
<212> DNA  
<213> Glycine max

<400> 344

gcctttcaag cccaggggtt ttcttcaacg catcacccctc accgcaaaac acgtacgccg 60  
taaagttcgc agttccactc agccaaggga tacgacttgg tagtgtcagg ttgggtcggg 120  
tgatgaggat ccgacccggt cgcgcactcc agagcgcatt tcggagaagg tggaggagag 180  
cataaagaac gcgcaggagg cgtgcgccgg cgacccgacg agcggcgagt gcgtggcggc 240  
gtgggacgag gtggagg 257

<210> 345  
<211> 281  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<400> 345

gagaatggca actatgactg gtgtgagcct ttcattgccc agggttttct tcaacgcatt 60  
agtctcaccg naaaacgcgc atgctgtaaa gttctcactt tcanacagcc aagaagacac 120  
aaagggtagt atcaagttgg gtcgcgtgat gaggatccga cccgttcgag ctgcgtctga 180  
gcgcatatcg gagaaggtgg aggagagctg aaggaacgcg caggaggcgt gcgccggcga 240  
tccgacgagc ggcgagtgcg tagcggcggt ggacgaggtg g 281

<210> 346  
<211> 249  
<212> DNA  
<213> Glycine max

<400> 346

gagaatggca actatgactg gtgtgagcct ttcatgcccc agggttttct tcaacgcata 60  
 agcctcaccg caaaacgcgc atgctgtaaa gttctcactt ccagccagcc tatgagtctt 120  
 accgggtagt agcaagttgg gtcgcgtgat gatgatccga cccgttcgcg ctgcgcctga 180  
 gcgcataatcg gagaaggtgg aggagagcaa acagaacgcg ctaggaggcg tacgccggcg 240  
 atccgacga 249

<210> 347  
 <211> 240  
 <212> DNA  
 <213> Glycine max

<400> 347

cgtccgatag gatgcgagaa gacgacagaa ggggagagaa caagaatcaa agaatggcaa 60  
 ctatgactgg tgtgagcctt tcaagcccca gggttttctt caacgcata ccctcgccgc 120  
 aaaacacgta cgccgtaaag ttcgcagttc cactcagcca agggactcga cttggtagt 180  
 tcaggttggg tcgggtgatg aggatgcgag ccgttcgcgc agctccagag cgcagttcgg 240

<210> 348  
 <211> 91  
 <212> DNA  
 <213> Glycine max

<400> 348

gagaatggga actatgactg gtgtgagcgt ttcatgcgcc agggttttct gcaacgcata 60  
 agcgtcaggg caaaacgcgc atagtgtaaa g 91

<210> 349  
 <211> 119  
 <212> DNA  
 <213> Glycine max

<400> 349

ctcgagccga gagaatggca actatgactg gtgtgagcct ttcatgcccc agggttttct 60  
 tcaacgcata agcctcaggg caaaacgcgc atgctgtaaa gttctcactt ccaccagc 119

<210> 350  
 <211> 175

<212> DNA  
<213> Glycine max

<400> 350

gaagaatcag agaatggcaa ctatgactgg tgtgagcctt tcatgccccca gggtttttctt 60  
caacgcatca gcctcaccgc aaaacgcgca tgctgtaaag ttctcacttc caccagacca 120  
agcagtgcga cggggtagta tcaagttggg tcgctgatg aggatccgac ccgtt 175

<210> 351  
<211> 285  
<212> DNA  
<213> Glycine max

<400> 351

gaagaatcag agaatggcaa ctatgactgg tgtgagcctt tcatgccccca gggtttttctt 60  
caacgcatca ggctcaccgc aaaacgcgca tgctgtaaag ttctctttta ttgtattttg 120  
tccagcagat tctatgactt gacaggactg cagaatggaa ttctgaagcg agggagagag 180  
attttcctca ctggttgcta cctccgaact cccactggag gttctggaca ttcacgtctt 240  
ttgccaacag agtatcttgt gattctattg gatgaagact tccaa 285

<210> 352  
<211> 111  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<400> 352

gaatggcaac tatgactggt gtgagccttt natgccccag ggttttcttc aacgcatnag 60  
cntcacnngn aaaacgcgca tgctgtaaag ttctcanttc cacacaacat a 111

<210> 353  
<211> 156  
<212> DNA  
<213> Glycine max

<400> 353

cttagacctc atcatcataa acccctcca gagaacaaga aacatccgaa tggcaactat 60  
gactggtgtg agcctttcaa gcccagggg tttcttcaac gcatcaccct caccgcaaaa 120

cacgtacgcc gtaaagttcg cagttccact cagcca 156

<210> 354  
 <211> 136  
 <212> DNA  
 <213> Glycine max

<400> 354

tcatacataaa cccctccag agaacaagaa tcacagaatg gcaactatga ctggtgtgag 60

cctttcaagc ccaggggttt tcttcaacgc atcacctca ccgcaaaaca cgtacgccgt 120

aaagttcgca gttcca 136

<210> 355  
 <211> 85  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 355

ctatgactgg tgtgagcctt tcaagcccca gggttntctt caacgcatca ccctcacngc 60

aaaacacgta cgccgtaaag ttgcg 85

<210> 356  
 <211> 356  
 <212> DNA  
 <213> Glycine max

<400> 356

ctctctgaaa tgggtttcgc tttggcatatc acagcatctg gttgttgctc aaacctacaa 60

tttcagtctc tggtattcgc tgctgcttca ttgagatcaa aaccgtgtct ctctctctgc 120

aactctactt atcgacccaa acgcattctc cagcgttctc caattggttg cgctcagtct 180

gaaaatggag ctctggttac ttccggagaag cccgacacta attacggaag acaatacttc 240

cccctcgtctg ctgttgtagg ccaagattct ataaaaactg ctcttttact tgggtgcaatt 300

gaccccgggg ttggaggaat tgccatatca ggaaagcgag gaactgccaa aactgt 356

<210> 357  
 <211> 339  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 357

anatggggttt cgcttttgga ttcacagctt cttctacttg ctgntcaaatt ctacaatctc 60  
 agtctctgtt attcgctgct gctgcattga gatcaaaacc gtgtctctct ctctgcaaca 120  
 cttatcgacc caaacgcatt cggaagcggt ctcnaattgt tggcgctcaa tctgaaaacg 180  
 gagctctcgt tacttccgag aagcctgaca ctaattacgg nagacaatac ttccccctcg 240  
 ctgctgttgt aggccaagat gctataaaaa ctgctctttt acttggggcc attgaccctg 300  
 ggattggagg aattgccata tcatgaaagc gaggnactg 339

<210> 358  
 <211> 284  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 358

tccggttatg gcgtccgcct tgggcacttc ttcaattgcn gttctgcctt cgcgctactt 60  
 ctctctctct tctctccagc cttccattca cactctctct nnaacttcag ggcagaacta 120  
 tgggcggaag ttttatggag gaattggaat ccatggcata aagggaagg ctcagctctc 180  
 ggttaccaat gttgccactg aagttaactc tgnagaacag gctcagagta ttgcttctaa 240  
 aganagccag aggccagtat acccattttc tgccatantt ggnc 284

<210> 359  
 <211> 263  
 <212> DNA  
 <213> Glycine max

<400> 359

tggcgctccgc cttgggcact tcttcaattg cggttctgcc ttcgcgctac ttctcttctt 60  
 cttcttccaa gccttccatt cacactctct ctctaacttc agggcagaac tatgggcgga 120  
 agttttatgg aggaattgga atccatggca taaagggaag ggctcagctc tcggttacca 180  
 atgttgccac tgaagttaac tctgtagaac aggctcagag tattgcttct aaagaaagcc 240  
 agaggccagt atacccattt tct 263



<210> 360  
 <211> 280  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 360  
  
 gtctgtcttc tcttctcttc tccggttatn gcgtccgcct tgggcacttc ttcaattgcg 60  
 gttctgcctt cngggtaactc tcttcttctt cttccaagcc ttccattcac actctctctc 120  
 taacttcagg gcagaactat gggcggaagt tttatggagg aattggaatc catggcataa 180  
 agggaagggc tcagctctcg gttaccaatg ttgccactga agttaactct gtagaacagg 240  
 ctcagagtat tgcttctaaa gaaagccaga ggccagtata 280

<210> 361  
 <211> 278  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <400> 361  
  
 tctgctccgg ttatggcntc cgncttgggc acttcttcaa ttgcngntct gccttnncng 60  
 ctacttctct ncntcttctt ccaagccttc cattcanact cncctctctaa cttcanggca 120  
 gaactatggg cggaagtttt atggaggaat tggaatccat ggnataaang gaagggctca 180  
 gctctcgggt accaatgttg ncantgnagt taactctgna naacaggctc agantattgc 240  
 ttctaaagaa agccagaggc cagtataccc attttctg 278

<210> 362  
 <211> 283  
 <212> DNA  
 <213> Glycine max  
  
 <400> 362  
  
 attgctacat agcacacact ccctcttctc ttctacgggt atggcgcca cgttgggcac 60  
 ttcttcaatt gcgggttcttc cttcgcgctg catctcttct ttttcttcca agccttccat 120  
 tcacacactc tctctaactt cagggcagag ctatgggcgg aaattttatg gaggaattgg 180  
 aattcatggc atcaagggaa ggtctcagct ctcagttgcc aatgttgcca ctgaagttaa 240  
 ctctgtagaa caggcccaaa gtattgcttc taaagaaagc cag 283

<210> 363  
 <211> 273  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <400> 363

gnaacaaatt gctacatagc acacactccc tcttctcttc tacggttatg gcgtccacgt 60  
 tgggcacttc ttcaattgcg gttcttcctt cgcgctgcat ctcttctttt tcttccaagc 120  
 cttccattca cacactctct ctaacttcag ggcagagcta tgggcggaaa ttttatgnag 180  
 gaattggaat tcatggcatc aagggaaggt ctcagctctc agttgccaat gttgccactg 240  
 aagttaactc tgtagaacag gcccaaagta ttg 273

<210> 364  
 <211> 259  
 <212> DNA  
 <213> Glycine max

<400> 364

caaattgcta catagcacac actccctctt ctcttctacg gttatggcgt ccacgttggg 60  
 cacttcttca attgcggttc ttccttcgcg ctgcatctct tcttttctt ccaagccttc 120  
 cattcacaca ctctctctaa cttcagggca gagctatggg cggaattttt atggaggaat 180  
 tggaattcat ggcataagg gaaggtctca gctctcagtt gccaatgttg cactgaagt 240  
 taactctgta gaacaggcc 259

<210> 365  
 <211> 253  
 <212> DNA  
 <213> Glycine max

<400> 365

acggctgcga aagacgacag aaggggacgg ttatggcgtc cacgttgggc acttcttcaa 60  
 ttgcggttct tccttcgcg tgcatctctt ctttttcttc caagccttcc attcacacac 120  
 tctctctaac ttcagggcag agctatgggc ggaaatttta tggaggaatt ggaattcatg 180  
 gcatcaaggg aaggtctcag ctctcagttg ccaatgttgc cactgaagtt aactctgtag 240

aacaggccca aag 253

<210> 366  
<211> 243  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<400> 366

aataaaagac aaaagaaaca aaangctaca tagcatacag tctgtcttct cttctcttct 60  
ccggttatgg cgtccgctt gggcacttct tcaattgcgg ttctgccttc gcgctacttc 120  
tcttcttctt cttccaagcc ttccattcac actctctctc taacttcagg gcagaactat 180  
gggcggaagt tttatggagg aattggaatc catggcataa agggaagggc tcagctctcg 240  
gtt 243

<210> 367  
<211> 259  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<400> 367

gcacacactc cctcttctct tctacggtta tggcgctcac gttgggcact tcttcaattg 60  
cggttcttcc ttccgctgc atctcttctt tttcttccaa gccttccatt cacacactct 120  
ctctaacttc agggcagagc tatgggcgga aattttatgg aggaattgga attcatgggc 180  
atcaaggga ngtctcagct ctcagttgcc aatggtgcc ctgaagttaa ctctgtagaa 240  
caggcccaaa gtattgctt 259

<210> 368  
<211> 163  
<212> DNA  
<213> Glycine max

<400> 368

caaattgcta catagcacac actccctctt ctcttctacg gttatggcgt ccacgttggg 60  
cacttcttca attgcgggtt ttcccttcgg ctgcattctt tcttttctt ccaagccttc 120  
cattcacaca ctctctctaa cttcagggca gagctatggg cgg 163

<210> 369  
 <211> 151  
 <212> DNA  
 <213> Glycine max

<400> 369

gaaattgcta catagcacac actccctctt ctcttctacg gttatggcgt ccacgttggg 60  
 cacttcttca attgcgggtc ttccttcgcg ctgcatctct tctttttctt ccaagccttc 120  
 cattcacaca ctctctctaa cttcagggca g 151

<210> 370  
 <211> 232  
 <212> DNA  
 <213> Glycine max

<400> 370

gaagaatgaa atctatctat cttcttatcc gaagcccggtg aggccaataa gaagcacgtc 60  
 agctgctatg aatgggtgaat aaaacacaaa agaaacaaat tgctacatag cacacactcc 120  
 ctcttctctt ctacggttat ggcgtccacg ttgggcactt cttcaattgc ggttcttctt 180  
 tcgcgctgca tctcttcttt ttcttccaag ccttccattc acacactctc tc 232

<210> 371  
 <211> 107  
 <212> DNA  
 <213> Glycine max

<400> 371

tacggctgga agacgacaga agggggaata aaacacaaaa gacacaaatt gctacatagc 60  
 acacactccc tcttctcttc tacggttatg gcgtccacgt tgggcac 107

<210> 372  
 <211> 235  
 <212> DNA  
 <213> Glycine max

<400> 372

ctcgagccga atcggctcga ggcagattaa aagggatgga attaccaagc ttgttattct 60  
 tccactttat ccacaatttt caatatcaac cagtggctca agcctacgtc tactggagag 120

tatattccga gaggatgagt atctagtcaa catgcagcac acagtaatac catcatggta 180  
tcaacgtgaa ggatacataa aggccatggc aaatttgatt gagaaagagt tgaga 235

<210> 373  
<211> 250  
<212> DNA  
<213> Glycine max

<400> 373

gaccaggcac ttgcaattaa aatggctttg gaagcaaagg gcatctcttc aaatgtctac 60  
gttgggatgc gatactggta cccatttacc gaagaagcaa ttcagcaaata taagagggac 120  
agaataacaa ggcttgtggt actaccctt tatccccagt tttctatata cacaactgga 180  
tcaagcatcc gtgttcttga gcatatattc agggaagatg cctacttgtc taagctccct 240  
gtttccatta 250

<210> 374  
<211> 254  
<212> DNA  
<213> Glycine max

<400> 374

ggaatgtgtt gatttgatca tggaagagct tgaaaagaga aagataacta atgcatacac 60  
ccttgcttat cagagtagag ttggacctgt ggaatgggta aaaccctata cagatgagac 120  
aataattgaa cttgggaaaa agggagtaaa aagcctgctg gctgtaccaa ttagctttgt 180  
cagcgagcat attgaaactc tcgaagaaat tgatgttgag tacaagaat tggctctaaa 240  
ctctggtata gaaa 254

<210> 375  
<211> 248  
<212> DNA  
<213> Glycine max

<400> 375

gaaaaagttg gtgtgctgct tctcaatcta ggaggaccag agacattgaa tgacgttcaa 60  
ccttttctgt ttaatctttt tgcagatcct gatatcattc gtcttccaag gttgtttcgg 120  
tttctccage gaccattggc aaaattgatt tctgtacttc ggtctcctaa atccaaggaa 180

gggtatgctg ctattggtgg tggctctcct ttacgcaaaa ttacagatga ccaggcactc 240  
gcaattaa 248

<210> 376  
<211> 275  
<212> DNA  
<213> Glycine max

<400> 376

aattgacatg gagtacaagg aattggctct tgaatctggc atcaagaatt gggcacgtgt 60  
acctgccctt ggtgttaccc cttccttcat tacagattta gcagatgcag taatagaagc 120  
tctcccatca gcaacagcaa tatatgcacc gaccagaacc tctgaagatg ttgatcatga 180  
cccagttaga tattttatca agatgttctt tgggttcaatc ttggcattca tcttgttctt 240  
gtcacccaaa atgatcacgg cattcaggaa tcatg 275

<210> 377  
<211> 288  
<212> DNA  
<213> Glycine max

<400> 377

ccttccttca tacagattta gcagatgcag taatagaagc tctcccatca gcaacagcaa 60  
tatatgcacc gaccagaacc tctgaagatg ttgatcatga cccagttaga tattttatca 120  
agatgttctt tgggttcaatc ttggcattca tcttgttctt gtcacccaaa atgatcacgg 180  
cattcaggaa tcatgtcatt tagaagaatt aaatcctgct tgctgaattc aatctgcaag 240  
catatagatg aagcctattg atagcaacaa agtatacttt gatttttt 288

<210> 378  
<211> 282  
<212> DNA  
<213> Glycine max

<400> 378

atggaaaaaa gggagtgaag agtctgctcg ctgttccaat tagcttcgtc agtgagcata 60  
ttgaaactct agaagaaatt gatgttgaat acaaagagtt ggctctagaa tctggtatag 120  
aaaagtgggg ccgtgttctt gctctaggat gcgaacctac cttcatttct gatttggcag 180

atgccgttat tgagagtctc ccatatgttg gtgccatgac agcttcagac cttgaagctc 240  
aacaatcctc gttccatggg cagtgtagaa gaggttattgg ca 282

<210> 379  
<211> 237  
<212> DNA  
<213> Glycine max  
<400> 379

catccgtgtt cttgagcata tattcagggg agatgcctac ttgtctaagc tccctgtttc 60  
cattataaac tcttggtatc aacgagaagg ttatattaag tcaatggcta acttaattca 120  
gaaagagctc cagagttttt ctgaaccaa agaggtaatg atatTTTTtca gtgccccatgg 180  
tgtacctgtc agttacgttg aggaagctgg ggatccatac cgagaccaa tggagga 237

<210> 380  
<211> 253  
<212> DNA  
<213> Glycine max  
<400> 380

actggatcaa gcatccgtgt tcttgagcat atattcaggg aagatgccta cttgtctaac 60  
ctccctgttt ccattataaa ctcttggtat caacgagaag gttatattaa gtcaatggct 120  
aacttaattc agaaagagcg ccagagtttt tcttaaccaa aagaggtaat gatatTTTTc 180  
agtgccccatg gtgtacctgt caagtacgtt gagggagctg gggatccata ccgagaccaa 240  
atggaggagt gca 253

<210> 381  
<211> 269  
<212> DNA  
<213> Glycine max  
<400> 381

ttcttgagca tatattcagg gaagatgcct acttgtctaa gctccctgtt tccattataa 60  
actcttggtg tcaacgagaa gggtatatta agtcaatggc taacttaatt cagaaagagc 120  
tccagagttt ttctgaacca aaagaggtaa tgatatTTTT cagtgcccat ggtgtacctg 180  
tcagttacgt tgaggaagct ggggatccat accgagacca aatggaggag tgcattctct 240

tgatcatgca agagttgaaa gctagagga 269

<210> 382  
 <211> 251  
 <212> DNA  
 <213> Glycine max

<400> 382

aagagctcca gagtttttct gaaccaaaag aggtaatgat attttttcagt gcccatggtg 60  
 tacctgtcag ttacgttgag gaagctgggg atccataccg agaccaaag gagggagtgc 120  
 tcttcttgat catgcaagag ttgaaagcta gaggaattag taatgagcac actcttgctt 180  
 atcagagtcg agtgggtcct gtacagtggc tgaaaccata tactgatgaa gttctcgttg 240  
 agcttggcca a 251

<210> 383  
 <211> 275  
 <212> DNA  
 <213> Glycine max

<400> 383

ttaattcaga aagagctcca gagtttttct gaaccaaaag aggtaatgat attttttcagt 60  
 gcccatggtg tacctgtcag ttacgttgag gaagctgggg atccataccg agaccaaag 120  
 gagggagtgc tcttcttgat catgcaagag ttgaaagcta gaggaattag taatgagcac 180  
 actcttgctt atcagagtcg agtgggtcct gtacagtggc tgaaaccata tactgatgaa 240  
 gttctcgttg agcttggcca aaaagggtgtg aagag 275

<210> 384  
 <211> 168  
 <212> DNA  
 <213> Zea mays

<400> 384

ctttcttaca tatattcagc accacctctc aagctcgagc agaatggatg gattgggaac 60  
 ttcgctctgg gtgcgagtta catcagcttg ccttggtggg ctggccaggc gttatttgga 120  
 actcttacac cagatatcag tgtcttgact actttgtaca gcatagct 168

<210> 385



<211> 256  
 <212> DNA  
 <213> Zea mays  
  
 <400> 385  
  
 attgaagggg ataggactct ggggcttcag tcacttcctg ttgcttttgg gatggaaact 60  
 gcaaaatgga tttgtgttgg agcaattgat atcactcaat tatctgttgc aggttaccta 120  
 ttgagcaccg gtaagctgta ttatgccctg gtgttgcttg ggctaacaat tcctcagggtg 180  
 ttcttttcagt tccagtactt cctgaaggac cctgtgaagt atgatgtcaa atatcaggca 240  
 agcgcacaaac cattct 256

<210> 386  
 <211> 411  
 <212> DNA  
 <213> Zea mays  
  
 <400> 386  
  
 cccacgcgtc cgcccacgcg tccgcccacg cgtccgcca cgcgccgag cacacacggg 60  
 cgcacagggg cctagctcga gtccactact tgaaaaacag gaaaaagggtt gcgtttgagg 120  
 agatgacgaa gctcgtggag atagccagcc actgcgcgtc ggcatatgaa aagcgggtcgg 180  
 aatacgggtga gcgcggaagct gcgaggagcg acctgaacat ggcgacgctt cttgatccta 240  
 ccaggactta tccttacaga tacagagcag ctgtactgat ggacgaaggc aaggaggagg 300  
 aggcgatcgc ggagctgtca ggagccatag ctttcaagcc ggaccttcag ctgctgcacc 360  
 ttcgcgcggc gttcttcgac tccatgggcg agcgcgagag cgccctgtgg g 411

<210> 387  
 <211> 484  
 <212> DNA  
 <213> Zea mays  
  
 <223> unsure at all n locations  
 <400> 387  
  
 ntgggggttnn ctagagggga ggggggcaat tgatggaagt cttcaattcc gtttcgnacc 60  
 nccccgccc acgcgtccgc cgacgccaaa aacgcgaagg cgaacgcat ggccccgaat 120  
 aagagcaccg gcggcggtatg actccagttt caaccagctg ctcggtatca aaagtgccta 180  
 gccagggaac ggctttttgg aaaatccgcc ttaacttaac taagccggtg acatggcctc 240

cgcttggttg gggagttctc tgtggagcag ctgcctctgg aaatttccac tggacagttg 300  
aagatgtcgc aaaatctatt gtatgcatga taatgtctgg tccatgcctt acaggataca 360  
cacagacact taatgactgg tatgatcgag acattgatgc aattaatgag ccttatcggc 420  
ctattccatc aggtgctata tcaganaacg aggtaataac ccagatctgg gtgctattgc 480  
tagg 484

<210> 388  
<211> 301  
<212> DNA  
<213> Zea mays

<400> 388  
ccaaggcccc gaataacgca cccgcggcgg atggctccag tttcaaccag ctgctcggta 60  
tcaaggggtgc taagcaagac agcgacatgt ggcagatgcg tcttcaactt actaagccgg 120  
tgacatggcc tccgcttggt tggggagttc tctgtggagc agctgcctct ggaaatttcc 180  
agtggacagt tgaagatgtc gcaaaatcta ttgtatgcat gataatgtct ggtccatgcc 240  
ttacaggata cgcacagaca cttaatgact ggtatgatcg agacattgat gcaattagt 300  
a 301

<210> 389  
<211> 284  
<212> DNA  
<213> Zea mays

<400> 389  
tgaagatgtc gcaaaatcta ttgtatgcat gataatgtct ggtccatgcc ttacaggata 60  
cacacagaca cttaatgact ggtatgatcg agacattgat gcaattaatg agccttatcg 120  
gcctattcca tcaggtgcta tatcagaaaa cgaggtaata acccagatct ggggtgctatt 180  
gctaggaggg cttggattgg gtgctttggt agatgtgtgg gcaggacatg attttccat 240  
tgtgttttat cttgctgtgg gtggctcctt actttcttac atat 284

<210> 390  
<211> 256  
<212> DNA  
<213> Zea mays

<400> 390

caattaatga gccttatcgg cctattccat cagggtgctat atcagaaaac gaggtaataa 60

cccagatctg ggtgctattg ctaggagggc ttggattggg tgctttgtta gatgtgtggg 120

caggacatga ttttctatt gtgttttata ttgctgtggg tggctcccta ctttctaca 180

tatattcagc accacctctc aagctccagc agaatggatg gaatgggaac ttcgctctgg 240

gtgcgagtta catcag 256

<210> 391

<211> 318

<212> DNA

<213> Zea mays

<400> 391

gcatgataat gtctgggtcca tgccttacag gatacacaca gacacttaat gactggtatg 60

atcgagacat tgatgcaatt aatgagcctt atcggcctat tccatcaggt gctatatcag 120

aaaacgaggt aataaccag atctgggtgc tattgctagg agggcttgga ttgggtgctt 180

tgttagatgt gtgggcagga catgatcttc ctattgtgtt ttatcttgct gtgggtggct 240

ccttactttc ttacatatat tcagcaccac ctctcaagct caagcagaat ggatggattg 300

ggaacttcgc tctgggtg 318

<210> 392

<211> 272

<212> DNA

<213> Zea mays

<400> 392

ctgggtgtaag agttccaaat aacgcctggc cagcccacca gggcaagatg atgtaactct 60

aaccagagc gaagttccca atccatccat tctgcttgag cttgagaggt ggtgctgaat 120

atatgtaaga aagtaaggag ccaccacag caagataaaa cacaatagga aaatcatgtc 180

ctgcccacac atctaacaaa gcaccaatc caagccctcc tagcaatagc accagatct 240

gggttattac ctggttttct gatatagcac ct 272

<210> 393

<211> 288

<212> DNA  
 <213> Zea mays  
 <400> 393  
 cacacagaca cttaatgact ggtatgatcg agacattgat gcaattaatg agccttatcg 60  
 gcctattcca tcaggtgcta tatcagaaaa cgaggtaata acccagatct ggggtgctatt 120  
 gctaggaggg cttggattgg gtgctttggt agatgtgtgg gcaggacatg attttcctat 180  
 tgtgttttat cttgctgtgg gtggctcctt actttcttac atatattcag caccacctct 240  
 caagctcaag cagaatggat ggattgggaa cttcgctctg ggtgcgag 288

<210> 394  
 <211> 256  
 <212> DNA  
 <213> Zea mays  
 <400> 394  
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 tcaaatatca ggcaagcgca caaccattct tcgtactggg cctactgggtg acagcactgg 120  
 caaccagcca ttaatgaagg caaacttaaa cagaacgagc aaccgttctg atacgaaga 180  
 ggcacgtctg gtgaccatta ataagctagc tgcttgtgtg cagggtagga agagaacgtc 240  
 tttttacttg tagaac 256

<210> 395  
 <211> 280  
 <212> DNA  
 <213> Zea mays  
 <400> 395  
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 tcaaatatca ggcaagcgca caaccattct tcgtactggg cctactgggtg acagcactgg 120  
 caaccagcca ttaatgaagg caaacttaaa cagaacgagc aaccgttctg atacgaaga 180  
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 tttttacttg tagaacacag atcgattttg taagggttat 280

<210> 396  
 <211> 287

<212> DNA  
 <213> Zea mays  
 <400> 396  
 cccacgcgtc cgtattcagc accacctctc aagctcaagc agaatggatg gattgggaac 60  
 ttcgctctgg gtgcgagtta catcagcttg ccctgggtggg ctggccaggc gttatttgga 120  
 actcttacac cagatatcat tgtcttgact actttgtaca gcatagctgg gctagggatt 180  
 gctattgtaa atgatttcaa gagtattgaa ggggatagga ctctggggct tcagtcactt 240  
 cctgttgctt ttgggatgga aactgcaaaa tggatttgtg ttggagc 287

<210> 397  
 <211> 152  
 <212> DNA  
 <213> Zea mays  
 <400> 397  
 cagcaccacc tctcaagctc aagcagaatg gatggattgg gaacttcgct ctgagtgcga 60  
 gttacatcag cttgccctgg tgggctggcc aggcgttatt tggaactctt acaccagata 120  
 tcattgtcta gactacttcg tacagcatag ct 152

<210> 398  
 <211> 298  
 <212> DNA  
 <213> Zea mays  
 <400> 398  
 agggcttcgt gtcggaggcg gagtccggca agaggctggc gcaggtggtc agcgacccca 60  
 gctcaccaa gtcgggggtg tactggagct ggaacaagga ctcggcgtcg ttcgagaacc 120  
 agctgtcgca ggaggccagc gatccggaga aggccaaagaa gctctgggag atcagcgaga 180  
 agctcgtggg gcttccttga gctccccgca caggaaaaag cgacatgatg aatctgtcga 240  
 gcagaggagc tttecgcttcg ttgtattatg tgtaacatta gcatccattt gtttgttt 298

<210> 399  
 <211> 218  
 <212> DNA  
 <213> Zea mays  
 <400> 399

ggggagttcg acggcgccaa ggcatacaag gacagcaagg tgtgcaacat gctgacgatg 60  
 caggagttcc accgccggta ccacgaggag acgggcgtga ccttcgcgtc gctctaccgc 120  
 ggctgcatcg ccaccagggg cctgttccgc gaacaaattc cgctgttccg gctgtgctcc 180  
 gcccgccgtt ccagaagtac atcaccaggg tacgtctc 218

<210> 400  
 <211> 317  
 <212> DNA  
 <213> Zea mays

<400> 400  
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 cacgaacaga ggcaccaccc agcatggccc tgcaggcggc gctactccca tacaccctct 120  
 catccgtccc caagaagtgc agcctcgccg tcgcgggcga tgacacggca ttccttagcg 180  
 tatectacaa gaagggtgcac gcggcgctac tgtccgtgaa aacgcggtgg cgactaccgc 240  
 gcctgtggcc acgccggggg ccagcacggc ggtcaacgat gggaagaaga ccgtgcgga 300  
 tgccgtggtg gtgatca 317

<210> 401  
 <211> 172  
 <212> DNA  
 <213> Zea mays

<400> 401  
 gcagaagtcc gactaccggt cccggcggt tatcactctc ggggtccatca ccggcaacag 60  
 caacacgctg gccgggaaca tcccgcccaa ggccgggctg ggcgaccttc gcgggctcgc 120  
 ggccgggctg cgcggccaga acggctctgc catgatcgac ggcttcgaga gc 172

<210> 402  
 <211> 313  
 <212> DNA  
 <213> Zea mays

<400> 402  
 aaatcctcag tcctcagggt gtcacagtt cgtgctatcc gctcgcgtc ccggtagtgt 60  
 gcctgctcgg caattcggca tggcgctcca ggccgcgacg tccttctctc cctcggccct 120

ctcggcgcgcg aaggaggggt cgtcgggtgaa ggactcggcg ttcttgggtg tccatctcgc 180  
ggacgatggc ctcaagctgg agaccgctgc tctgggccta cgcaccaaga gggatgatcac 240  
gtcgggtggcc atccgcgcgc aggcggcagc ggtgtcctca ccatcagtat accccgcgtc 300  
gccgtccggc aag 313

<210> 403  
<211> 252  
<212> DNA  
<213> Zea mays

<400> 403

cccagccaaa tctcagtc ttaggctgct cacagttcgt gctatccgct cgcgctccc 60  
gtagtctgcc tgctcggcaa ttcggcatgg cgctccaggc cgcgacgtcc ttcttcccct 120  
caggccctct gcggcgcgca aggtaggggt cgtcgggtgaa ggactcggcg ttcttgggtg 180  
tccatctcgc ggacgatggc ctcaagctgg agaccgctgc tatgggccta cgcaccaaga 240  
gggtgatcac gt 252

<210> 404  
<211> 399  
<212> DNA  
<213> Zea mays

<400> 404

accacgcgtc cgcatacaag gacagcaagg tgtgcaacat gctgacgatg caggagtcc 60  
accgccggta ccacgaggag acgggcgtga ccttcgcgtc gctctaccg ggctgcatcg 120  
ccaccacggg cctgttccgc gagcacatcc cgctgttccg cctgctcttc ccgccgttcc 180  
agaagtacat caccaagggg tacgtctccg aggaggaggc cgggaagcgg ctggcgcagg 240  
tggtgagcga cccagcctg accaagtccg gcgtgtactg gagctggaac aagaactccg 300  
cgtccttcga gaaccagctc tctgaggagg ccagcgacgc cgacaaggcc aagaagctct 360  
gggagatcag cgagaagctc gtcggcttgg cgtgatgcc 399

<210> 405  
<211> 442  
<212> DNA  
<213> Zea mays

<223>        unsure at all n locations  
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gagcttcgac ggcgccaaagg cgtacaagga cagcaagatc tgcaacatgc taacaatgca  180
ggagctgcac cggcggtacc acgaggagac gggcatcacg ttgcgctcgc tctaccggg  240
gtgcatcgcc accacggggc tgttcgcga gcacatcccg ctgttcggc tgccttccc  300
gccgttcag aagttcgtca ccaaaggctt cgtgtcggaa gcggagtcg gcaagaagct  360
ggcgcgatgtg gtcagcgacc ccagcctcac caagtccgng gtgtactgga gctggaacaa  420
ggactccgcg tcgttcgaga ac                                     442
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<210>        406  
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 <213>        Zea mays

<400>        406

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tccgagagct tcgacggcgc caaggcgta aaggacagca agatctgcaa catgctcacc  180
atgcaggagc tgcaccggcg gtaccacgag gagacgggca tcacgttcgc gtcgctctac  240
ccgggggtgca tcgccaccac ggggctgttc cgcgagcaca tcccgctgtt ccgcctgctc  300
ttcccgcctt tccagaagtt cgtcaccaag ggcttcgtgt cggaggcgga gtccggcaag  360
aggctggcgc atgtggtcag cgaccccagc cttaccaaag tcgggggtgta ctggagctgg  420
aacaggggac tcgcgtcggt cg                                     442
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<210>        407  
 <211>        352  
 <212>        DNA  
 <213>        Zea mays

<400>        407

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gccgggctgg gcgacctgcg cggcctcgcg gcggggctgc gcggccagaa cggctctgcc 180  
atgatcgacg gctccgagag cttcgacggc gccaaggcgt acaaggacag caagatctgc 240  
aacatgctca ccatgcagga gctgcaccgg cgggtaccacg aggagacggg catcacgttc 300  
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<400> 408

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gcgtacaagg acagcaagat ctgcaacatg ctaacaatgc aggagctgca cgggcggtac 180  
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<210> 409  
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<212> DNA  
<213> Zea mays

<400> 409

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gccaccacgg gcctgttccg cgagcacatc ccgctgttcc gcctgctctt cccgccgttc 180  
cagaagtaca tcaccaaggg gtacgtctcc gaggaggagg ccgggaagcg gctggcgag 240  
gtggtgagcg accccagcct gaccaagtcc gg 272

<210> 410  
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<212> DNA  
<213> Zea mays

<400> 410

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 aggcgtacaa ggacagcaag atctgcaaca tgctcaccat gcaggagctg caccggcggt 180  
 accacgagga gacggggcatc acgttcgcgt cgctctaccc ggggtgcatc gccaccacgg 240  
 ggctgttccg cgagcacatc ccgctgttcc gcctgtcttt cccgccgttc cagaagtctg 300  
 tcaccaagg 309

<210> 411  
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 <212> DNA  
 <213> Zea mays

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 acgggcatca cgttcgcgtc gctctacccg ggggtgcatcg ccaccacggg gctgttccgc 180  
 gagcacatcc cgctgttccg cctgtctcttc ccgcctttcc agaagtctgt caccaagggc 240  
 ttcgtgtcgg aggcggagtc cggc 264

<210> 412  
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 <212> DNA  
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<400> 412  
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 ccttcggggtc gctctacccg ggctgaatgg caacaacggg cctgttccgg gaacacatcc 180  
 cgctgttccg gctgctcttc ccgccgttcc agaagtacat caccaagggg gtacgtctcc 240  
 gaggaggagg ccgggaagcg ctggcgc 267

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 <212> DNA  
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<400> 413

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ccacgaggag acgggcatca cgttcgcgtc gctctacccg ggggtgcatcg ccaccacggg 120  
gctgttccgc gagcacatcc cgctgttccg cctgctcttc ccgccgttcc agaagtctgt 180  
caccaagggc ttcgttccga agcggaaccg gcaagaagct tgccgagggtg gtcagcgacc 240  
ccagcctcac caagtcgggg gtgtactgga gctggaacaa ggactcggcg tcgttcgaga 300  
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<210> 414

<211> 291

<212> DNA

<213> Zea mays

<400> 414

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gctgggcgac ctccgcagcc tcgggcgggg ctgcgcggcc agaacggctc tgccatgac 180  
gacggctccg agagcttca cggcgccaag gcgtacaagg acagcaagat ctgcaacatg 240  
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<210> 415

<211> 268

<212> DNA

<213> Zea mays

<400> 415

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gaccaagtcc ggcgtgtact ggagctggaa caagaactcc gcgtccttcg agaaccagct 180  
ctctgaggag gccagctgac gcgacaaggc caagaagctc tgggagatcc gcgagaagct 240  
cgtcggcttg gcgtgatgcc caccgtgc 268

<210> 416

<211> 296

<212> DNA

<213> Zea mays

<400> 416

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gcttcgacgg cgccaaggcg tacaaggaca gcaagatctg caacatgctc accatgcagg 180

agctgcaccg gcggtaccac gaggagacgg gcatcacgtt cgcgtcgctc taccgggggt 240

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<210> 417

<211> 255

<212> DNA

<213> Zea mays

<400> 417

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ccgggaagcg gctgtcgcag gtcgtgagcg accccagcct gaccaagtcc ggcgtgtact 120

ggagctggaa caagaactcg gcgtccttcg agaaccagct ctctgaggag gccagcgacg 180

ccgacaaggc caagaagctc tgggagatca gcgagaagct cgtcagcttg gcgtgacgac 240

ctgatgtcca cagtg 255

<210> 418

<211> 326

<212> DNA

<213> Zea mays

<400> 418

cggacgcgtg ggcggacgcg tggggaagta catcaccaag gggtagctct ccgaggagga 60

ggccgggaag cggtggcg cagggtgag cgacccagc ctgaccaagt ccggcgtgta 120

ctggagctgg aacaagaact ccgcgtcctt cgagaaccag ctctctgagg aggccagcga 180

cgccgacaag gccaagaagc tctgggagat cagcgagaag ctcgtcggct tggcgtgatg 240

cccaccgtgg ccggcgccgg cagccggcga cagtttttcc tacctaggac atgctcatta 300

gttggtctca gtcgagtagt cgacgt 326

<210> 419

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 aggaggccag cgacgccgac aaggccaaga agctctggga gatcagcgag aagctcgtcg 180  
 gcttggcgtg acgacctgat gcccaccgtg gccggcgccg gcagccggtg acagtttttt 240  
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<210> 420  
 <211> 217  
 <212> DNA  
 <213> Zea mays  
  
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 tccgactacc cgccccgcg cctcgtcatt ctcggctcca tcaccggcaa caccaacacg 120  
 ctggccggga acatcccgcc caaggccggg ctgggagacc tccgcggcct cgcgccgggg 180  
 ctgcgcgggc agaacggctc tgccatgata gacggct 217

<210> 421  
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 <212> DNA  
 <213> Zea mays  
  
 <400> 421  
  
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 ggccagcgac gccgacaagg ccaagaagct ctgggagatc agcgagaagc tcgtcggctt 180  
 ggcgtgatgc ccaccgtggc cggcgccggc agccggcgac agtttttcct acctaggaca 240  
 tg 242

<210> 422  
 <211> 116  
 <212> DNA

<213> Zea mays  
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 accacgggcc tgttcgcga gcacatcccg ctgttcgcc tgccttccc gccgtt 116  
  
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 <213> Zea mays  
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 cgacgcctcg cggcggggct gcacggccat aacggctctg ccatgatcga cggctccgag 120  
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 <212> DNA  
 <213> Zea mays  
 <400> 424  
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 tcgcgcgcgg ccaaggcggc cggcatggac aaggacagct tcaccgtcgt gcacctggac 180  
 ctgcctccc tggacagcgt ccgccagttc gtcaagaacg tcgccagct ggagatgccc 240  
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 cgcg 364  
  
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gatgcccatac gacgtggtgg tctgcaacgc cgcctgttac cagcccaccg ccaaggagcc 120  
gtcctacacc gccgacggct tcgagatgag cgtcggcgtc aaccacctcg gccacttctt 180  
cctcgcgcg c gagctcctca ggcacctcca gtctccgac taccctctta agcgctcat 240  
catcgtcggc tccatcacgc ggaacacgta cacgctggcg gggaacgtg 289

<210> 426  
<211> 331  
<212> DNA  
<213> Zea mays

<400> 426

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ctcgacagcg tccgccagtt cgtcaagaac gtgcgccagc tggagatgcc cgtcgacgtg 180  
gtggtctgca acgccgccgt gtaccagccc accgccagg agccgtccta caccgccgac 240  
ggcttcgaga tgagcgtcgg cgtcaaacac ctccggccact tctctctcgc ccgcgagctc 300  
ctcagcgacc tccagtcctc cgactatccc t 331

<210> 427  
<211> 280  
<212> DNA  
<213> Zea mays

<400> 427

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ctctcagcg acctccagtc ctccgactac ccctctaagc gcctcatcat cgtcggctcc 180  
atcaccggga acacgaacac gctggcgggg aacgtgcccc cgaactcgaa cctgggcgac 240  
ctgcgcgggc tcgccggcg cctcaacggc gttggcagct 280

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<211> 285  
<212> DNA  
<213> Zea mays

<400> 428

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ccagtccctcc gactaccctt ctaagcgctt catcatcgtc ggctccatca ccgggaacac 120  
gaacacgctg gcgggggaacg tgcccccgaa ggcgaaacctg ggcgacctgc gcggcctcgc 180  
cggcggcctc aacggcgctg gcagctcggt gatgatcgac ggcggggagt tcgacggcgc 240  
caaggcatatc aaggacagca aggtgtgcaa catgctgacg atgca 285

<210> 429  
<211> 282  
<212> DNA  
<213> Zea mays

<400> 429

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ggagacaggc aagtggcacg tcatcatggc ctgccgcgac ttctcaagg cgtcgcgcgc 120  
ggccaaggcg gccggcatgg acaaggacag cttcaccgtc gtgcacctgg acctcgcctc 180  
cctggacagc gtccgccagt tcgtcaggaa cgtgcgccag ctggagatgc ccatcgacgt 240  
ggtggtctgc aacgccgcgcg tgtaccagcc caccgccaag ga 282

<210> 430  
<211> 276  
<212> DNA  
<213> Zea mays

<400> 430

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tgagcgtcgg cgtcaaccac ctcggccatt tcctcctcgc ccgcgagctc ctcagcgacc 180  
tcagtcctc cgactacccc tctaagcgcc tcatcatcgt cggctccatc accgggaaca 240  
cgaacacgct ggcggggaac gtgccccgac agcgaa 276

<210> 431  
<211> 229  
<212> DNA  
<213> Zea mays

<400> 431



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ctccccgtca gtgacccccg cgtcgccgtc tggcaagaag accctccgca agggcacggc 120  
ggtcatcacc ggcgcgctgt ccggcctcgg cctcgccacg gcgaaggccc tcgcgagagac 180  
aggcaagtgg cacgtcatca tggcctgccg cgacttctca aggcgtcgc 229

<210> 432  
<211> 394  
<212> DNA  
<213> Zea mays

<400> 432

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cctccccctct gccctctccg cgcgcaagga ggggtcgggtg aaggactcgg cgtcgttctt 180  
gggtgttcgt ctcgcggcgg atgggctcaa gctggacacc accgctctgg gcctacgcac 240  
cgtgaggggtg agcaggctcgg cggacatccg cgcgcagacg gcagcgggtgt cctccccgtc 300  
agtgaccctt gcgtcgccgt ctggcaagaa gaccctccgc attggcacgg cggtcatcat 360  
cggcgcgctcg tccggcctcg gcctcgccac ggcg 394

<210> 433  
<211> 275  
<212> DNA  
<213> Zea mays

<400> 433

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aggggtgagca ggtcggcgga catccgcgcg cagacggcag cgggtgcctc cccgtcagtg 120  
acccccgcgt cgccgtcttg caagaagacc ctccgcaagg gcacggcggg catcaccggc 180  
gcgtcgtccg gcctcggcct cgccacggcg aaggccctcg cggagacagg caagtggcac 240  
gtcatcatgg cctgccgcga cttcctcaag gcgtc 275

<210> 434  
<211> 418  
<212> DNA  
<213> Zea mays

<223> unsure at all n locations  
<400> 434

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acgtcctttc tcccctcggc cctctccgag cgcaaggagg ggtcgggtgaa ggactcggcg 180  
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ctacgcaccg tgaggggtgag caggtcggcg gacatccgag cgcagacggc agcgggtgtcc 300  
tcnccgtcag tgacnccgc gtcccgtct ggcaanaaga cctccgnaag ggnaangggc 360  
gtcatnaacg gggggctngn tagggcncng gggnnncnna gggngaaggg ngccnct 418

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<211> 321  
<212> DNA  
<213> Zea mays

<400> 435  
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ccctctccgc gcgcaaggag gggtcgggtga aggactcggc gtcgttcttg ggtgttcgtc 180  
tcgcggcgga tggcctcaag ctggacacca ccgctctggg cctacgcacc gtgaggggtga 240  
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gatcgcgtct ggcaagaaga c 321

<210> 436  
<211> 112  
<212> DNA  
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<400> 436  
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atcgtcagct ccatcaccgg gaacacgaac acgctggcgg ggaacgtgcc cc 112

<210> 437  
<211> 296  
<212> DNA  
<213> Zea mays

<400> 437

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cgctgctcga catggcgctc caggcggcga cgtcctttct cccctcgggc ctctccgcgc 180  
gcaaggagggt gtcggtgaag gactcggcgt cgttcttggg tgttcgtctc gcggcggatg 240  
gcctcaagct ggacaccacc gctctgggcc tacgcaccgt gagggtgagc aggtcg 296

<210> 438

<211> 175

<212> DNA

<213> Zea mays

<400> 438

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ggggtcgggtg aaggactcgg cgtcgttctt ggggtgttcgt ctgcggcggg atggcctcaa 120  
gctggacacc accgctctgg gcctacgcac cgtggagggtg agcaggtcag cggac 175

<210> 439

<211> 301

<212> DNA

<213> Zea mays

<400> 439

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ctccccctctg cccctctccg gcgcaaggag ggggtcgggtga aggactcggc gtcgttcttg 180  
gggtgttcgtc tcgcggcgga tggcctcaag ctggacacca ccgctctggg cctacgcacc 240  
gtgagggtga gcaggtcggc ggacatccgc gcgcagacgg cagcgggtgtc ctccccgtca 300  
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<210> 440

<211> 261

<212> DNA

<213> Zea mays

<400> 440

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acggcagcgg tgtcctcccc gtcagtgacc cccgcgtcgc cgtctggcaa gaagaccctc 180  
cgcataggca cggcgggtcat caccggcgcg tcgtccggcc tcggcctcgg cacggcgaag 240  
gccctcgcg agacaggcaa g 261

<210> 441  
<211> 84  
<212> DNA  
<213> Zea mays

<400> 441

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catggcctgc cgcgacttcc tcaa 84

<210> 442  
<211> 352  
<212> DNA  
<213> Zea mays

<400> 442

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gggtccagca cggcggccaa ggatgggaag aagaccgtgc ggcagggcgt ggtggtgatc 120  
acgggcgcgt cgtcgggggtt gggcctggcg gcggccaaagg cgctggcgga gaccggcaag 180  
tggcacgtgg tgatggcctg ccgcgacttc ctcaaggcgg ccaaggcggc caagggcgcc 240  
ggcatggcgg acggcagcta caccatcatg cacctggacc tggccttcct cgacagcgtg 300  
cggcagttcg tggacagctt ccggcgcgcc ggcatgccgc tcgactcgct cg 352

<210> 443  
<211> 279  
<212> DNA  
<213> Zea mays

<400> 443

acgggcgcgt cgtcgggggtt gggcctggcg gcggccaaagg cgctggcgga gaccggcaag 60  
tggcacgtgg tgatggcctg ccgcgacttc ctcaaggcgg ccaaggcggc caagggcgcc 120

ggcatggcgg acggcagcta caccatcatg cacctggacc tggcctccct cgacagcgtg 180  
 cggcagttcg tggacagctt ccggcgcgcc ggcattgccg tcgactcgct cgtctgcaac 240  
 gccgccatct accggcccccac ggcataagacg ccgacgttc 279

<210> 444  
 <211> 221  
 <212> DNA  
 <213> Zea mays

<400> 444

aaagcgcatt gatctcgctg tcgtcactcc tcgtcaccca gccaaaggcgc tggcggagac 60  
 cggcaagtgg cacgtggtga tggcctgccg cgacttcctc aaggcggcca aggcggccaa 120  
 gggcgccggc atggcggacg gcagctacac catcatgcac ctggacctgg cctccctcga 180  
 cagcgtgcgg cagttcgtgg acagcttccg gcgcgcgggc a 221

<210> 445  
 <211> 310  
 <212> DNA  
 <213> Zea mays

<400> 445

agtgcagcct cgccgtcgcg gcgaaggaca cggcattcct tagcgtatcc cagaagaagg 60  
 tgcaggcggc gtcgctgtcg gtgagaacgc ggggtggcgac gacggcgcct gtggccacgc 120  
 cgggggtccag cacggcggcc aaggatggga agaagaccgt gcggcagggc gtggtggtga 180  
 tcacgggcgc gtcgtcgggg ttgggcctgg cggcggccaa ggcgctggcg gagaccggca 240  
 agtggcacgt ggtgatggcc tgccgcgact tcctcaaggc ggccaatgcg gccaaagggc 300  
 ccggcatggc 310

<210> 446  
 <211> 295  
 <212> DNA  
 <213> Zea mays

<400> 446

cccacgcgtc cgcggcgaag gacacggcat tccttagcgt atcccagaag aaggtgcagg 60  
 cggcgtcgct gtcggtgaga acgcgggtgg cgacgacggc gcctgtcgcc acgccggggt 120

ccagcacggc ggccaaggat gggaagaaga cegtgcggca gggcgtggtg gtgatcacgg 180  
gcgcgtcgtc ggggttgggc ctggcgggcg ccaaggcgct ggcggagacc ggcaagtggc 240  
acgtggtgat ggctgccgc gacttctca aggcggccaa ggcggccaag ggcgc 295

<210> 447  
<211> 444  
<212> DNA  
<213> Zea mays

<400> 447

cggacgcgtg ggcgaacaaa agcgcacga tctcgtctg gtcactctc gtcacccagg 60  
cacgaacaga ggcaccaccc agcatggccc tgcaggcggc gtcctctca tccacctct 120  
catcgtccc caagaagtgc agcctcgccg tcgcggcgaa ggacacggca ttccttagcg 180  
tatcccagaa ggtcagtgat cagctgcac tgcagtctg actcgagtc acaatgcgct 240  
tgaattgaac gtgtcactca ctctgtcgtg agcatgccat gcgtgcagaa ggtgcaggcg 300  
gcgtcgtctg cggtagagat cacttcgcca tctaccggcc cagggaagg acgccgacgt 360  
tcacggcgga cggatacgag atgagcgctg gcgtcaacca cctgggccac ttcctcctgg 420  
cgcgcctgct cctggacgac atgc 444

<210> 448  
<211> 423  
<212> DNA  
<213> Zea mays

<400> 448

cccacgcgtc cgcccacgcg tccgcggact cgtgggcttc gccacgaaca aaagcgcac 60  
gatctcgtg tcgtcactcc tcgtcaccca gccacgaaca gaggcaccac ccagcatggc 120  
cctgcaggcg gcgtcctcc catccacct ctcacccgtc cccaagaagt gcagcctcgc 180  
cgtcgcggcg aaggacacgg cattccttag cgtatcccag aagaagggtg aggcggcgtc 240  
gctgtcgggtg agaacgcggg tggcgacgac ggcgcctgtg gccacgccg ggtccagcac 300  
ggcgccaag gatgggaaga agaccgtgcg gcaggcggtg gtggtgatca cgggcgcgtc 360  
gtcgggggtg ggctggcg cgccaaggc gctggcgag accggcaagt ggcacgtggt 420  
gat 423

<210> 449  
 <211> 279  
 <212> DNA  
 <213> Zea mays

<400> 449

cgctgtcgtc actcctcgtc acccagccac gaacagaggc accacccagc atggccctgc 60  
 aggcggcgct cctcccatcc accctctcat ccgtcccca gaagtgcagc ctgcgcgtcg 120  
 gggcgaagga caccggcattc cttagcgtat ccacgggcgc ggacgccgac gttcacggcg 180  
 gacgggtacg agatgagcgt cggcgtcaac cacctgggcc acttcctcct ggcgcgcctg 240  
 ctctggacg acatgcagaa gtccgactac acgtccgc 279

<210> 450  
 <211> 396  
 <212> DNA  
 <213> Zea mays

<400> 450

gacttcgcca cgaacaaaag cgcacgac tcgctgtcgt cactcctcgt caccagcca 60  
 cgaacagagg caccaccag catggccctg caggcgggcgc tcctcccatc caccctctca 120  
 tccgtcccca agaagtgcag cctgcgcgtc gggcgaagg acacggcatt ccttagcgtc 180  
 tcccagaaga aggtgcaggc ggcgtcgtc tcggtgagaa cgcgggtggc gacgacggcg 240  
 cctgtggcca cgccgggggc cagcacggcg gccaggatg ggaagaagac cgtgcggcag 300  
 ggcgtggtgg tgatcacggg cgcgtcgtcg ggggtgggcc tggcggcggc caaggcgtg 360  
 gcggagaccg gcaagtggca cgtggtgatg gcctgc 396

<210> 451  
 <211> 375  
 <212> DNA  
 <213> Zea mays

<400> 451

cagagtcact tcgccacgaa caaatgcgca tcgatctcgc tgcgtcact cctcgtcacc 60  
 cagccacgaa cagaggcacc acccagcatg gccctgcagg cggcgctcct cccatccacc 120  
 ctctcatccg tcccgaagaa gtgcagctc gccgtcgcgg cgaaggacac ggcattcctt 180

agcgtatccc agaagaaggt gcaggcggcg tcgctgtcgg tgagaacgcg ggtggcgacg 240  
acggcgccctg tggccacgcc ggggtccagc acggcggcca aggatgggaa gaagaccgtg 300  
cggcagggcg tgggtggtgat cacgggcgcg tcgtcggggg tgggcctggc ggcggccaag 360  
gcgctggcgg agacc 375

<210> 452  
<211> 326  
<212> DNA  
<213> Zea mays

<400> 452

aacaaaagcg catcgatctc gctgtcgtca ctctcgtca ccagccacg aacagaggca 60  
ccaccacgca tggccctgca ggcggcgctc ctcccatcca ccctctcatc cgtccccaag 120  
aagtgcagcc tcgccgtcgc ggcgaaggat caggcattcc ttagcgtatc ccagaagaag 180  
gtgcaggcgg cgtcgtcgtc ggtgagaacg cgggttgcca cgacggcgcc tgttgccacg 240  
ccgggggtcca gcacggcggc caaggatggg aagaagaccg tcgggcaagg cgtggtggtg 300  
atcacgggcg cgtcgtcggg gttggg 326

<210> 453  
<211> 338  
<212> DNA  
<213> Zea mays

<400> 453

gagtcacttc gccacgaaca aaagcgcac gatctcgtg tcgtcactcc tcgtcaccca 60  
gccacgaaca gaggcaccac ccagcatggc cctgcaggcg gcgctcctcc catccaccct 120  
ctcatccgtc cccaagaagt gcagcctcgc cgtcgcggcg aaggacacgg cattccttag 180  
cgtatcccag aagaagggtg aggcggcgtc gctgtcggtg agaacgcggg tggcgacgac 240  
ggcgccctgtg gccacgccgg ggtccagcac ggcggccaag gatgggaaga agaccgtgcg 300  
gcagggcgtg gtggtgatca ctggcgcgtc gtcggggg 338

<210> 454  
<211> 273  
<212> DNA  
<213> Zea mays



<400> 454

cttcgccacg aacaaaagcg catcgatctc gctgtcgtca ctctctgtca ccagccacg 60  
aacagaggca ccaccagca tggccctgca ggcggcgctc ctcccatcca ccctctcatc 120  
cgtccccaag aagtgcagcc tcgccgtcgc ggcgaaggac acggcattcc ttagcgtatc 180  
ccagaagaag gtgcaggcgg cgtcgtctgtc ggtgagaacg cgggtggcga cgacggcgcc 240  
tgtggccacg ccgggggtcca gcacggcggc caa 273

<210> 455

<211> 296

<212> DNA

<213> Zea mays

<400> 455

gccacgaaca aaagcgcac gatctcgctg tcgtcactcc tcgtcaccca gccacgaaca 60  
gaggcaccac ccagcatggc cctgcaggcg gcgctcctcc catccaccct ctcatccgtc 120  
cccaagaagt gcagcctcgc cgtcgcggcg aaggacacgg cattccttag cgtatcccag 180  
aagaaggtgc aggcggcgctc gctgtcgggtg agaacgcggg tggcgacgac ggcgccctgtg 240  
gccacgccgg ggtccagcac ggcggccaag gatgggaaga agaccgtgcg gcaggg 296

<210> 456

<211> 314

<212> DNA

<213> Zea mays

<400> 456

cagagtcagt tcgccacgaa caaaagcgcg tcgatgtcgc tgtcgtcact cgtcgtcacc 60  
cagccacgaa cagaggcacc acccagcatg gccctgcagg cggcggggtcg tcggatccac 120  
gctgtcatcc gtccccgaga agtgcagcct cgccgtcgcg gcgaagggtca cggcattcct 180  
tagcgtatcc cagaagaagg tgcaggcggc gtcgggtgtcg gtgagaacgc ggggtggcgac 240  
gacggcgccct gtggccacgc cgggggtccag cacagcggcc aaggatggga agaagaccgt 300  
gcggcagggc gtgg 314

<210> 457

<211> 287

<212> DNA  
 <213> Zea mays

<400> 457

gagtcacttc gccacgaaca aaagcgcac gatctcgtg tcgtcactcc tcgtcaccca 60  
 gccacgaaca gaggcaccac ccagcatggc cctgcaggcg gcgctcctcc catccaccct 120  
 ctcatccgtc cccaagaagt gcagcctcgc cgtcgcggcg aaggacacgg cattccttag 180  
 cgtatcccag aagaagggtg aggcggcgtc gctgtcggtg agaacgcggg tggcgacgac 240  
 ggcgctgtg gccacgccgg ggtccagcac ggcggccaag gatggga 287

<210> 458  
 <211> 312  
 <212> DNA  
 <213> Zea mays

<400> 458

cagagtcact tcgccacgaa caaaagcgca tcgatctcgc tgctgctact cctcgtcacc 60  
 cagccacgaa cagaggcacc acccagcatg gccctgcagg cggcgctcct cccatccacc 120  
 ctctcatccg tccccaaaga gtgcagcctc gccgtcgcgg cgaaggacac ggcatcctt 180  
 agcgtatccc agaagaaggt gcaggcggcg tcgctgtcgg tgagaacgcg ggtggcgacg 240  
 acggcgcttg tggccacgcc ggggtccagc acggcgggcca aggatgggaa gaagaccgtg 300  
 cggcagggcg tg 312

<210> 459  
 <211> 321  
 <212> DNA  
 <213> Zea mays

<400> 459

gtcacttcgc cacgaacaaa agcgcacga tctcgtgtg gtcactcctc gtcaccacgc 60  
 cacgaacaga ggcaccaccc agcatggccc tgcaggcggc gtcctccca tccaccctct 120  
 catccgtccc caagaagtgc agcctcgccg tcgcgggcga ggacacggca ttccttagcg 180  
 tatcccagaa gaagggtgcag gcggcgctgc tgtcggtag aacgcgggtg gcgacgacg 240  
 cgctgtggc cagcggggg tccagcacgg cggccaagga tgggaagaag accgtgcggc 300  
 agggcggtgt ggtgatcacg g 321

<210> 460  
 <211> 281  
 <212> DNA  
 <213> Zea mays

<400> 460

cttcgccacg aacaaaagcg cgtcgatctc gctgtcgtca ctctcgtca cccagccacg 60  
 aacagaggca ccaccagca tggccctgca ggcggcgctc ctcccatcca cctctctatc 120  
 cgtccccaag aagtgcagcc tcgccgtcgc ggcgaggac acggcattcc ttagcgtatc 180  
 ccagaagaag gtgcaggcgg cgtcgctgtc ggtgagaacg cgggtggcga cgacggcgcc 240  
 tgtggccacg cgggggtcca gcaggcggcc aaggatggga a 281

<210> 461  
 <211> 314  
 <212> DNA  
 <213> Zea mays

<400> 461

cagagtcact tcgccacgaa caaaagcgca tcgatctcgc tgctcgtcact cctcgtcacc 60  
 cagccacgaa cagaggcacc acccagcatg gccctgcagg cggcgctcct cccatccacc 120  
 ctctcatccg tccccaagaa gtgcagcctc gccgtcgcgg cgaaggacac ggcatctcctt 180  
 agcgtatccc agaagaaggt gcaggcggcg tcgctgtcgg tgagaacgcg ggtggcgacg 240  
 acggcgccctg tggccacgcc ggggtccagc acggcggcca aggatgggaa gaagaccgtg 300  
 cggcatggcg tggt 314

<210> 462  
 <211> 351  
 <212> DNA  
 <213> Zea mays

<400> 462

gtccggcaag atgctggcgc aggtggtcag cgaccccagc ctcaccaagt cgggggtgta 60  
 ctggagctgg aacaaggact cggcgctcgtt cgagaaccag ctgtcgcagg aggccagcga 120  
 tccggagaag gccaaagaagc tctgggagat cagcgagaag ctctgtggggc ttgcttgagc 180  
 tcgccggcac ggcacagcga catgatggat ctgtcgagca gaggagcttt cgcttcgttg 240

tattatgtgt accattagca tccatTTTgt ttgtttctag aagttggtaa tgaccgtcgg 300  
agaagagcct gtaattgttc gatcatgtat tgcttacaat ttttttttaa a 351

<210> 463  
<211> 327  
<212> DNA  
<213> Zea mays

<400> 463

gtccggcaag atgctggcgc aggtggtcag cgacccacgc ctcaccaagt cgggggtgta 60  
ctggagctgg aacaaggact cggcgtcgtt cgagaaccag ctgtcgcagg aggccagcga 120  
tccggagaag gccaagaagc tctgggagat cagcgagaag ctcgtggggc ttgcctgagc 180  
tcgccggcac gcgacagcga catgatggat ctgtcgagca gaggagcttt cgcttcgttg 240  
tattatgtgt accattagca tccatTTTgt ttgtttctag aagttggtaa tgaccgtcgg 300  
agaagagcct gtaattgttc gatcatg 327

<210> 464  
<211> 304  
<212> DNA  
<213> Zea mays

<400> 464

ggcctgccgc gacttcctca aggcggccaa ggcggccaag ggcgccggca tggcggacgg 60  
cagctacacc atcatgcacc tggacctggc ctcttcgac agcgtgcggc agttcgtgga 120  
cagcttcggc cgcgccggca tgccgctcga ctcgctcgtc tgcaacgccg ccatctaccg 180  
gcccacggcg cggacgccga cgttcacggc ggacgggtac gagatgagcg tcggcgtcaa 240  
ccacctgggc cacttcctcc tggcgcgcct gctcctggac gacatgcaga agtccgacta 300  
cccg 304

<210> 465  
<211> 285  
<212> DNA  
<213> Zea mays

<400> 465

cggcatggcg gacggcagct acaccatcat gcacctggac ctggcctccc tcgacagcgt 60

gcggcagttc gtggacagct tccggcgcgc cggcatgccg ctcgactcgc tcgtctgcaa 120  
cgccgccatc taccggccca cggcgcggac gccgacgttc acggcgggacg ggtacgagat 180  
gagcgtcggc gtcaaccacc tgggccactt cgtcctggcg cgcttgcctc tggacgacat 240  
gcagaagtcc gactactcgt cccgccgcct cgtcctcctc ggctc 285

<210> 466  
<211> 147  
<212> DNA  
<213> Zea mays

<400> 466

cccacgcgtc cgcacacgcg tccggtggac agcttcgcgc gcgcgggcat gccgctcgac 60  
tcgctcgtct gcaacgccgc catctaccgg cccacggcgc ggacgccgac gttcacggcg 120  
gacgggtacg agatgagcgt ccgcgtc 147

<210> 467  
<211> 280  
<212> DNA  
<213> Zea mays

<400> 467

actaaatgcc gaggtgatgg aacttgacct gctctccctc gactcggctc taaaatttgc 60  
tgatgcttgg acagctcgta tggcacgcgt gcacgtgttg atcaacaatg ctgagctctt 120  
cgctatagga gaaccccaac atttttccaa ggatggacat gaagaacaca tgcaagtga 180  
ccatcttgca cctgcattac tggcgatgct gcttatacct tcccttctcc gaggttctcc 240  
cagcagaatt gtaaacgtta attcaatcat gcacagtgt 280

<210> 468  
<211> 277  
<212> DNA  
<213> Zea mays

<400> 468

ctcaaatagc aagctggcac aggtaaaatt cagtagcatg cttcacaaga aaattcctgc 60  
agaggctggc atcgggtgtg tttgcgcttc tcctggaatt gtcgacacga acgttgcaag 120  
agctcttctc aagattgtcg tagccgcgta ccatttgatt ccctacttca tatttgacgc 180

tcaagaaggt tctaggagtg cactgtttgc agcatccgat ccccaagtcc cggaatactg 240  
cgagacgctc aagtcggagg actggccagt ttgtgcc 277

<210> 469  
<211> 436  
<212> DNA  
<213> Zea mays

<400> 469

ggttctccca gcagaattgt taacgttaat tcaatcatgc acagtgtagg ttttgttgat 60  
gctgaagatt tgaacttgag aaaacataaa tatagaagtt ggttggcgta ttcaaatagc 120  
aagttggcac aggtaaaatt tagtagcatg cttcataaga gaattcctgc agaagctggc 180  
atcagcataa tttgtgcttc tcttggaatt gtcgacacga atgttacaag agaccttcct 240  
aagattgttg tagctgcata ccattttctt ccctacttca tattcgatgg tcaagaaggt 300  
tctaggagtg cactgtttgc agcatgtgac ccccaagttc cagagtactg tgagatgctc 360  
aagtcggaag actggccagt ctgtgcttgc attaactacg actgtaatcc gatgaacgcg 420  
tctgaagaag cgcaca 436

<210> 470  
<211> 335  
<212> DNA  
<213> Zea mays

<400> 470

gtagaattta gtagcatgct tcataagata attcctgcag aagctggcat cagcataatt 60  
tgtgcttctc ctggaattgt cgacacgaat gttacaagag accttcctaa gattgttgta 120  
gctgcatacc gttttcttcc ctacttcata ttcgatggtc aagaaggttc taggagtgca 180  
ctgtttgcag catgtgaccc ccaagttcca gagtactgtt gagatgctca agtcggaaga 240  
ctggccagtc tgtgcttgca ttaactacga ctgtaatccg atgaacgcgt ctgaagaagc 300  
gcacagcttg ataccttcgc agctgggtctg ggaga 335

<210> 471  
<211> 343  
<212> DNA  
<213> Zea mays

<400> 471

gtaaaatgta gtagcatgct tcataagaga attcctgcag aagctggcat cagcataatt 60  
tgtgcttctc ctggaattgt cgacacgaat gttacaagag accttcctaa gattgttgta 120  
gctgcataacc gttttcttcc ctacttcata ttcatgggtc aagaagggtc taggagtga 180  
ctgtttgcag catgtgaccc ccaagttcca gagtactgtg agatgctcaa gtcggtagac 240  
tggccagtct gtgcttgcac taactacgac tgtaatccga tgaacgcgtc tgaagaagcg 300  
cacagccttg aaacctcgca gctggtctgg gagaagcgct cga 343

<210> 472

<211> 262

<212> DNA

<213> Zea mays

<400> 472

gtaaaattta gtagcatgct tcataagata attcctgcag aagctggcat cagcataatt 60  
tgtgcttctc ctggaattgt cgacacgaat gttacaagag accttcctaa gattgttgta 120  
gctgcataacc gttttcttcc ctacttcata ttcatgggtc aagaagggtc taggagtga 180  
ctgtttgcag catgtgaccc ccaagttcca gagtactgtg agatgctcaa gtcggaagac 240  
tggccagtct gtgcttgcac ta 262

<210> 473

<211> 256

<212> DNA

<213> Zea mays

<400> 473

gcttcataag agaattcctg cagaagctgg catcagcata atttgtgctt ctcttggaat 60  
tgtcgacacg aatgttacia gagaccttcc taagattgtt gtagctgcat accgttttct 120  
tccctacttc atattcgatg gtcaagaagg ttctaggagt gactgttttg cggcatgtga 180  
cccccaagtt ccagagtact gtgagatgct caagtcggaa gactggccag tctgtgcttg 240  
cattaactac gactgt 256

<210> 474

<211> 208

<212> DNA  
 <213> Zea mays  
 <400> 474  
 gcttcataag agaattcctg cagaagctgg catcagcata atttgtgctt ctcttggaat 60  
 tgtcgacacg aatggttaca gagaccttcc taagattggt gtagctgcat accgttttct 120  
 tccctacttc atattcgatg gtcaagaagg ttctaggagt gcaactgtttg cggcatgtga 180  
 cccccaagtt ccagagtact gtgagatg 208

<210> 475  
 <211> 338  
 <212> DNA  
 <213> Zea mays  
 <400> 475  
 gtatgattta gtagcatgct gcataagaga gttcctgcag aagctggcat cagcataatt 60  
 tgtgcttctc ctggaattct cgacacgaat gttacgagaa tccttcctaa gattgttgta 120  
 gctgcatacc gttgtcttcc ctacttcata ttcgatggtc aacaagggtc taggagtgca 180  
 ctgtctgcag catgtgaccc ccaagttcca gagtactgtg agatgctcaa gtcggaagac 240  
 tggccagtct gtgcttgcag taactacgac tgtaatccga tgaacgcgtc tgaagaagcg 300  
 cacagccttg aaacctcgca gctgggtctgg gagaagac 338

<210> 476  
 <211> 248  
 <212> DNA  
 <213> Zea mays  
 <400> 476  
 gattgatgct gaagatttca acttgagaaa acataaatat agaagttggt tggcgtattc 60  
 aaatagcaag ttggcacagg taaaatttag tagcatgctt cataagagaa ttcctgcaga 120  
 agctggcatc agcataatth gtgcttctcc tggaattgtc gacacgaatg ttacaagaga 180  
 ccttcctaag attgtttag ctgcatacgg tttcccccaa atcaaaatcg atggtcaaga 240  
 aggttcta 248

<210> 477  
 <211> 341



<212> DNA  
 <213> Zea mays  
 <400> 477

gagatcttcc taagattgtc gtagccgct accatttgat tccctacttc atatttgacg 60  
 ctcaagaagg ttctaggagt gcactgtttg cagcatccga tccccaagtc ccggagtact 120  
 gcgagacgct caagtcggag gactggccag tttgtgcctg cattaactat gactgtagtc 180  
 cgatgaatgc gtctgaagaa gcgcacaatc tggagacctc gcagctggtc tgggagaaga 240  
 cactggagat ggtcggcctt ccgccggatg ccctggagaa gctcatcgcc ggagaatcag 300  
 ttcagtgccg ttacggacaa caggatacaa cttactttt t 341

<210> 478  
 <211> 383  
 <212> DNA  
 <213> Zea mays  
 <400> 478

gtgcactgtt tgcagcatcc gatccccaag tcccgaata ctgcgagacg ctcaagtcgg 60  
 aggactggcc agggggtgcc tgcattaact atgactgtag tccgatgaat gcgtctgaag 120  
 aagcgacaaa tcttgagacc tcgcagctgg tctgggagaa gacactggag atggtcggcc 180  
 ttccgccgga tgccctggag aagctcatcg ccggagaatc agttcagtgc cgttacggac 240  
 aacaggatac aacttttttag ttagcagttt agaggtggtt tgttcggttg ttatgtcatt 300  
 ttgatcctaa atttgcaggg aggaaaacac agggaaagga gaaaaagaat ttgttgacag 360  
 ctaccaatc ttggctcttt tct 383

<210> 479  
 <211> 166  
 <212> DNA  
 <213> Zea mays  
 <400> 479

ggaggactgg ccattttgtg cctgcatgaa ctatgactgt agtccgatga atgcgtctta 60  
 caggagcgca caatcttgag acctcgcagc tggctctggga gaagacactg gagatggtcg 120  
 gcgttcgcc ggatgccctg gagaagctca tcgccggaga atcagt 166

<210> 480  
 <211> 382  
 <212> DNA  
 <213> Zea mays  
  
 <223> unsure at all n locations  
 <400> 480  
  
 agtgaggagt ngcttccaaa actgatgcat gnantcatgc aatacgcatt ccggtcgacc 60  
 actcgtaacc tggtaaacc gaaggattgg atctgattat ccgctattct tgtgtccctt 120  
 acgcttggag cacgatggca gtatgatcat aaaccggatg aaggaaccgc cgaacggaaa 180  
 cttctataag cctgcataaa cccgatagat tggatctgat tatcccttat tcttgagatc 240  
 tttagttaga gttttccctt ctgtagggct aaaaccacgt gcagcttcat gatataatcct 300  
 gcctctgtac aatcgtgaac aaatattacg tattaatgct ctatctgcct gtattatata 360  
 tgctgctttt tgcccatgtg aa 382

<210> 481  
 <211> 358  
 <212> DNA  
 <213> Zea mays  
  
 <400> 481  
  
 cctgcataaa cccgaaggat tggatctgat tagccgttat tcttgtgtcc cttccgcttg 60  
 cagcacgatg gcagtatgat cataaaccgg aagaaggaac cgaggaatgg aaacttctgg 120  
 aagcctgcat aaaccgaag gattggatct gattagccgt tattcttgag atcttttgtt 180  
 agagttttcc cttctgtagg gctaagacca cgtgcagttt cattatata tttgcatctg 240  
 tagaatcgtg aataaatatg atgtagtaat gctgtagctg tctgtatcta tctgctgttt 300  
 tttcccatg tgaatgagag aaccattggc ttctgtatta cgaaggattc aggtttct 358

<210> 482  
 <211> 275  
 <212> DNA  
 <213> Zea mays  
  
 <400> 482  
  
 accggaagaa ggaaccgagg aatggaaact tctggaagcc tgcataaacc cgaaggattg 60  
 gatctgatta gccgtcattc ttgagatctt ttgttagagt tttcccttct gtagggctaa 120

gaccacgtgc agtttcatta tttcttttttg catctgtaga atcgtgaata aatatgatgt 180  
agtaatgctg tagctgtttg tatctatctg ctgttttttc cccatgtgaa tgagtgaacc 240  
attggcttct gtatttacga aggattcagg tttct 275

<210> 483

<211> 335

<212> DNA

<213> Zea mays

<400> 483

cttgaagagg acgtgaagca tttccattct gttcaaaagc aagcatgtga taaatttgat 60  
ccaagttttc acccaagatt caaaaaatgg tgtgatgatt atttctatat taagcacctg 120  
aatgagcggc gtgggctagg tggaatatatt tttgatgacc ttaatgatta cgatcaagaa 180  
atgctttctca actttgctac agaatgtgcg gactctgtac ttcttgcgta cataccgatc 240  
atagaacggc ggaagaacac tccgttcaat gaggagcaca gggcatggca gcaattgcgg 300  
agaggtcgtt atgtggagtt caaccttgct tacga 335

<210> 484

<211> 475

<212> DNA

<213> Zea mays

<400> 484

caagaaatgc ttctcaactt tgctacagaa tgtgcggact ctgtacttcc tgcgtacata 60  
ccgatcatag aacggaggaa gaacactccg ttcaacgagg agcacagggc atggcagcaa 120  
ttgcggagag gtcgttatgt ggagttcaac cttgtctacg accgtggtac aacatttggc 180  
ctaaagactg gaggaaggat tgagagcata cttgtgtccc ttccacttac agcacgatgg 240  
cagtatgatc ataaaccgga agaaggaacc gaggaatgga aacttctgga agcctgcata 300  
aaccogaagg attggatctg attagccgtt attcttgaga tcttttgta gaagtttccc 360  
ttctgtaggg ctaagaccac gtgcagtttc attatatatt ttgcatctgt agaatcgtga 420  
ataaatatga tgtagtgatg ttgtagctgt ttggatctat ctgctggttt ttccc 475

<210> 485

<211> 329

<212> DNA

<213> Zea mays  
 <223> unsure at all n locations  
 <400> 485

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 taccgatcat agaacggagg aagaacactc cgttcaacga ggagcacagg gcatggcagc 120  
 aattgcggag aggtcggttat gtggagttca accttgtcta cgaccgtggt acaacatttg 180  
 gcctaaagac tggaggaagg attgagagca tacttgtgtc ncttccactt acagcacgat 240  
 ggcagtatga tcatanaccg gaagaaggaa ccgacgaatg ganacttctg gaagcctgca 300  
 tagacccgaa ggattggatc tgattagcg 329

<210> 486  
 <211> 270  
 <212> DNA  
 <213> Zea mays  
 <400> 486

caagattcaa aatatggtgt gatgattatt tctatattaa gcaccgtaat gagcggcgtg 60  
 ggctaggtgg aatatTTTTT gatgacctta atgattacga tcaagaaatg cttctcaact 120  
 ttgtctacaga atgtgcggac tctgtacttc ctgcgtacat accgatcata gaacggagga 180  
 agaacactcc gttcaacgag gagcacaggg catggcagca attgcggaga ggtcggttatg 240  
 tggagttcaa ccttgtctac gaccgtggta 270

<210> 487  
 <211> 256  
 <212> DNA  
 <213> Zea mays  
 <400> 487

cgcggcgtgg gctaggtgga atatTTTTTg atgaccttaa tgattacgat caagaaatgc 60  
 ttctcaactt tgctacagaa tgtgcggact ctgtacttcc tgcgtaacata ccgatcatag 120  
 aacggaggaa gaacactccg ttcaacgagg agcacagggc atggcagcaa ttgcggagag 180  
 gtcgttatgt ggagttcaac cttgtctacg accgtggtac aacatttggc ctaaagactg 240  
 gaggacggat tgacag 256

<210> 488  
 <211> 247  
 <212> DNA  
 <213> Zea mays  
  
 <400> 488  
  
 cttaatgatt acgatcaaga aatgcttctc aactttgcta cagaatgtgc ggactctgta 60  
 cttcctgcgt acataccgat catagaacgg cggaagaaca ctccgttcaa tgaggagcac 120  
 agggcatggc agcaattgcg gagaggctgt tatgtggagt tcaaccttgt ctacgaccgt 180  
 ggtaccacat ttggcctaaa gactggagga aggattgaga gcatacttgt gtccttccg 240  
 cttacag 247

<210> 489  
 <211> 236  
 <212> DNA  
 <213> Zea mays  
  
 <400> 489  
  
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 gttatgtgga gttcaacctt gtctacgacc gtggtaccac atttggccta aagactggag 120  
 gaaggattga gagcatactt gtgtcccttc cgcttacagc acgatggcag tatgatcata 180  
 aaccggaaga aggaaccgag gaatggaaac ttctggaagc ctgcataaac ccgaag 236

<210> 490  
 <211> 430  
 <212> DNA  
 <213> Zea mays  
  
 <400> 490  
  
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 attcttcgcc gcggggatta gttcggtgct tcacccaag aaccatttg ctccaacatt 120  
 gcattttaac taccgttact ttgagacgga tgcacaaaaa gatgcacctg gtgcaccaag 180  
 acaatggtgg ttccggcgtg gtactgactt gactccttca tatatcattg aagaggatgt 240  
 gaagcatttc cattctgttc aaaagcaagc atgtgataaa tttgatccaa gttttcaccc 300  
 aagattcaaa aaatggtgtg atgattatth ctatattaag caccgtaatg agcggcgtgg 360  
 gctaggtgga atatthtttg atgaccttaa tgattacgat caagaaatgc ttctcaactt 420

tgctacagaa 430

<210> 491  
<211> 304  
<212> DNA  
<213> Zea mays

<400> 491

gggccgccgc cgcgggatggc cacaagcctg gccccgtgcc attcttcgcc gcgggggatta 60  
gttcggtgct tcacccaag aaccatttg ctccaacatt gcattttaac taccgttact 120  
ttgagacgga tgcacaaaa gatgcacctg gtgcaccaag acaatggtgg ttcggcggtg 180  
gtactgactt gactccttca tacatcattg aagaggacgt gaagcatttc cattctgttc 240  
aaaagcaagc atgtgataaa tttgatccaa gttttcacc aagattcaaa aaatggtgtg 300  
atga 304

<210> 492  
<211> 307  
<212> DNA  
<213> Zea mays

<400> 492

ggaggccgcc aagaacgggg ccgccgccgc ggatggccac aagcctggcc ccgtgccatt 60  
cttcgccgcg gggattagtt cgggtgcttca cccaagaac ccatttgctc caacattgca 120  
ttttaactac cgttactttg agacgggatgc accaaaagat gcacctggtg caccaagaca 180  
atggtggttc ggcggtggtg ctgacttgac tccttcatac atcattgaag aggacgtgaa 240  
gcatttccat tctgttcaaa agcaagcatg tgataaattt gatccaagtt ttcacccaag 300  
attcaaa 307

<210> 493  
<211> 173  
<212> DNA  
<213> Zea mays

<400> 493

gcacgagaaa agatgcacct ggtgcaccaa gacaatggtg gttcggcggt ggtactgact 60  
tgactccttc atacatcatt gaagaggacg tgaagcattt ccattctgtt caaaagcaag 120

catgtgataa atttgatcca agttttcacc caagattcaa aaaatggtgt gat 173

<210> 494  
<211> 118  
<212> DNA  
<213> Zea mays

<400> 494

gttactttga gacggatgca ccaaaagatg cacctggtgc accaagacaa tgggtggttcg 60

gcggaggtac tgacttgact cttcataca tcattgaaga ggacgtgaag catatcca 118

<210> 495  
<211> 304  
<212> DNA  
<213> Zea mays

<400> 495

agaagccgca aaaactgccc tggaccgagg tggctacgat gggctgttcc taggagggaa 60

ctatgttgca ggagttgacc tgggcagatg cggtgagggc gcgtatgaaa gtgcctcgca 120

aatatctgac ttcttgacca agtatgccta caagtgatga aagaagtgga gcgctacttg 180

ttaattgttt atgttgcata gatgaggtgc ctacgggaaa aaaaagcttt aatagtattt 240

tttattctta ttttgtaa atgcatttctg ttcttttttc tgtcattaat tacttatatt 300

ttag 304

<210> 496  
<211> 295  
<212> DNA  
<213> Zea mays

<400> 496

gagggaaacta tgttgcagga gttgccctgg gcagatgcgt tgagggcgcg tatgaaagtg 60

cctcgcaaat atctgacttc ttgaccaagt atgcctacaa gtgatgaaag aagtggagcg 120

ctacttgтта atcgtttatg ttgcatagat gaggtgcctc cggggaaaaa aagcttgaat 180

agtatTTTTT attcttattt tgtaaattgc atttctgttc tttttctat cagtaattag 240

ttatatttta gttctgtagg agattgttct gttcactgcc cttcaaaaga atttt 295

<210> 497  
 <211> 305  
 <212> DNA  
 <213> Zea mays  
  
 <400> 497  
  
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 gctgaggtct tcgagcgctt cattgagcct ttctgctcag gtgtctatgc tggatgacct 180  
 tctaagctca gcatgaaggc tgcatttggg aagggttggc ggttgggaaga aactggaggt 240  
 agtattattg gtggaaccat caagacaatt caggagagga gcaagaatcc aaaaccactg 300  
 aggga 305

<210> 498  
 <211> 270  
 <212> DNA  
 <213> Zea mays  
  
 <400> 498  
  
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 aatcttggtg ctgaggtctt cgagcgctc attgagcctt tctgctcagg tgtctatgct 120  
 ggtgacctt ctaagctcag catgaaggct gcatttggga aggttggcg gttggaagaa 180  
 actggaggta gtattattgg tggaacatca agacaattca ggagaggagc aagaatccaa 240  
 aaccactgag ggatgccccgc cttccgaagc 270

<210> 499  
 <211> 423  
 <212> DNA  
 <213> Zea mays  
  
 <400> 499  
  
 atccaaagga agcaattaga aaagaatgct taattgatgg ggagctccag ggcgttgggc 60  
 agttgcatcc acgtagtcaa ggagttgaga cattaggaac aatatacagt tcctcactct 120  
 ttccaaatcg tgctcctgac ggtaggggtg tacttctaaa ctacatagga ggtgctacaa 180  
 acacaggaat tgtttccaag actgaaagtg agctggtcga agcagttgac cgtgacctcc 240  
 gaaaaatgct tataaattct acagcagtgg accctttagt ccttggtggt cgagtttggc 300



cacaagccat acctcagttc ctggtaggac atcttgatct tctggaagcc gcaaaagctg 360  
 ccctggaccg aggtggctac gatgggctgt tcctaggagg gaactatggt gcaggagttg 420  
 ccc 423

<210> 500  
 <211> 314  
 <212> DNA  
 <213> Zea mays

<400> 500

cacgcccctg ccggccatcg gggcgccgtt cgatatctcg gactccaagg ggcccgtgat 60  
 ccaatcgcca gtacgggtcca aagagcaggt gagggagctc gtcccatcg accttgatat 120  
 gctccagttc gtcggggagt cactaaagat tctgcgaaat gagattgatg gaaaagctgc 180  
 tttgctagga tttgtggggg ccccatggac aattgcaact tacattgttg aaggggggat 240  
 gaccaatcgc tacacaaata taaagagcat gtgccatata gctccagatg tcttgaaggg 300  
 tcttctctct cact 314

<210> 501  
 <211> 287  
 <212> DNA  
 <213> Zea mays

<400> 501

gaaggaggtt catcaaagaa ctttacattg attaagaaaa tggccttctc agaaccagcg 60  
 attctacaca atttgcata gaagttcaca acatcaatgg ctaactatat taaataccaa 120  
 gcggacaatg gggcgccaggc tgtccaaatt ttcgattcat gggctactga actcagcccg 180  
 actgattttg aggagtttag cctgccttat ctaaagcaga tagtggatag tgtaggggaa 240  
 acacatccta acttgcctct gatactctac gcaagtggat ctggggg 287

<210> 502  
 <211> 272  
 <212> DNA  
 <213> Zea mays

<400> 502

gtccagtgtg tacagatatt tgattcatgg ggtggacagc ttccacctca tgtatgggag 60

cagtgggtcaa aaccatatat caaacaggag ttgatgttat tgggcttgac tggacagtgg 120  
acactactga tggaaggtgg cgccttggta atggcattag tgtacaaggg aatgtggatc 180  
cagcattttt gttctcacca ttaccagtac tgactgatga aattcataga gttgtgaaag 240  
cagctggtcc aaaaggtcat accttaatct gg 272

<210> 503  
<211> 407  
<212> DNA  
<213> Zea mays

<400> 503

agggcagagg gcaggaaaag attgggatct aacacagcag tccaagggaa cgtggatcct 60  
ggtgttcttt ttggatccaa agagtttata agcaggcgga tttacgacac tgtgcagaag 120  
gctggcaatg ttggacatgt actgaacctt ggccatggca tcaaggttgg aactccggag 180  
gaaaatgttg ctcaattctt cgaggtcgca aaagggatca gatactaaag aaccttgcat 240  
ggttctttcc tttctccaaa tcggcagaag ttgtagagtc ggcggtcgag gatagatgca 300  
gaaagccatg tgcagtatag agtccttgaa aacatTTTTTg tgactgattc tgtctgtcgc 360  
aattcaagtt ccggtttcaa tgtgatattg taagcagatt tgagacg 407

<210> 504  
<211> 418  
<212> DNA  
<213> Zea mays

<400> 504

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ctaaggatgg gcattttgcc ctggaggagc tggcccaagc tggctatgag gtggttgggc 120  
ttgactggac agtggcccca aagaaagccc gggagtgtgt ggggaagacg gtgacattgc 180  
agggcaacct ggaccctgt gccttgatg catctgagga ggagatcggg cagttggtga 240  
agcagatgct ggatgacttt ggaccacatc gctacattgc caacctgggc catgggcttt 300  
atcctgacat ggaccagaa catgtgggcg cctttgtgga tgctgtgcat aaacactcac 360  
gtctgcttcg acagaactga gtgtatacct ttaccctcaa gtaccactaa cacagatg 418

<210> 505  
 <211> 508  
 <212> DNA  
 <213> Zea mays  
  
 <223> unsure at all n locations  
 <400> 505  
  
 cgagctggct gccattagag ctttcgcaac agaaataant agctaccgtc agccaccggt 60  
 tccggtaatt cgccggggga ggaccaccg cgtgccgcga gcggctgcaa ccacctactc 120  
 attgcgtttt caatggcaac aacgtgtacg tcggtctcgg tgccgtgcac cttcctcttg 180  
 cgcgccaggt ccgcccgcac catgcccaaga cgcaagcagc tcacggccgt ccgctgcagc 240  
 gccgtcagac aggccgtagt ggaagaggcc tcgcccggga ccgcggaaga tccgtgtctg 300  
 gtgagcgcaa tcagagggac gaaggctcag aagccaccg tatggctcat gaggcacgcc 360  
 gggaggtaca tgaagagcta ccaattgctc tgcgagcggc atccttcgtt ccgtgaaaga 420  
 tcagaaaatg tcgacctagt tgttgagatc tctttgcaac catggaaggt tttcaagcct 480  
 gaaggaatca tcttggtctc ggacattc 508

<210> 506  
 <211> 387  
 <212> DNA  
 <213> Zea mays  
  
 <400> 506  
  
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 ctgattttga ggagtttagc ctgccttacc taaagcagat agtggatagt gttagggaaa 120  
 cacatcctaa cttgcctctg atactctacg caagtggatc tgggggcttg ctggagaggc 180  
 ttcctttgac aggtgttgat gttgtcagct tggactggac ggtcgatatg gcagagggca 240  
 ggaaaagatt gggatctaac acagcagtc aagggaaacgt ggatcctggt gttctttttg 300  
 gatccaaaga gtttataagc aggcggatct acgacactgt gcagaaggct ggcaatgttg 360  
 gacatgtact gaaccttggc catggca 387

<210> 507  
 <211> 288  
 <212> DNA  
 <213> Zea mays

<400> 507

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gaggcaggcc gggaggtaca tgaagagcta ccaattgctc tgcgagcggg atccttgctc 120  
cgtgaaagat cagaaaatgt cgacctagtt gttgagatct ctttgcaacc atggaagggt 180  
ttcaagcctg atggagtcac cttgttctcg gacatcctta ctccacttcc tgggatgaac 240  
ataccttttg acattgtgaa gggaaaagggt ccagtgatct atgatcca 288

<210> 508

<211> 409

<212> DNA

<213> Zea mays

<400> 508

gtccgcgagc gctgcagcac ctccgatccc gccccaatgg caacagcgtg tccgccgctc 60  
tcgctgccgt ccacctccct ctccgcggc aggtccgccc gcgccggggc cagacgcagg 120  
cagctcacgg ccgtccgctg cagcgccgctc ggagaggcgg tagtgaggga ggcctcggcc 180  
gggacggcgg aagagccgct gctggtgagc gcaatcagag ggaggaagggt cgagaggcca 240  
cccgtctggc tcatgaggca ggccgggagg tacatgaaga gctaccaatt gctctgcgag 300  
cggtatcctt cgttccgtga aagatcagaa aatgtcgacc tagttgttga gatctctttg 360  
caaccatgga aggttttcaa gcctgatgga gtcattctgt tctcggaca 409

<210> 509

<211> 407

<212> DNA

<213> Zea mays

<400> 509

agccaagtgc tcgctctccc gacccaacgt tttgaccccc ttgcccgctc gcgagcgtg 60  
cagcacctgg gatcccgccc caatggcaac agcgtgtccg ccgctctcgc tgccgtccac 120  
ctccctcttc cgcggcagggt ccgcccgcgc cgggcccaaga cgcaggcagc tcacggccgt 180  
ccgctgcagc gccgtcggag aggcggtagt ggaggaggcc tcgcccggga cggcggaaga 240  
gccgctgctg gtgagcgcaa tcagaggag gaaggctcgag aggccacccg tctggctcat 300  
gaggcaagcc gggaggtaca tgaagagcta ccaattgctc tgcgagcggg atccttcggt 360

ccgtgaaaga tcagaaaatg tcgacctagt tgttgagatc tctttgc 407

<210> 510  
 <211> 275  
 <212> DNA  
 <213> Zea mays

<400> 510

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 catggacaat tgcaacttac attgttaaag ggggggatgac caacacatac acaaataataa 120  
 agaacatgtg ccatacagct cccgatgtct taggtgtctt ctatctcatc ttgcagtagc 180  
 gatattctgac tatatcattt accaagttaa ctccggggcc cagtgtatac agatatttga 240  
 ttcatggggc ggacaacttc cacctcatgt gtggg 275

<210> 511  
 <211> 266  
 <212> DNA  
 <213> Zea mays

<223> unsure at all n locations  
 <400> 511

tgccaagagc cgggccaaagg ctgcgctcca cgcccgctccg ggtcagcagc gagcaggagg 60  
 cggcgggcggc cgtnaggcg ccgtccggga ggaccatcga ggagtgcgag gccgacgccg 120  
 tcgctgggaa gttccctgct cccccgccgc tggttaggcc gaagcgctg aaggaacgcc 180  
 ggagatcagg ccccttgaca tggcaaagcg cccccgtcgc aaccgcaat cacctgctct 240  
 tagggctgca ttccaggaga cgagca 266

<210> 512  
 <211> 293  
 <212> DNA  
 <213> Zea mays

<400> 512

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 ccaggctctcg ggcgagtact cgatgatcaa agccggcggg gccctgggca tgggtggacga 120  
 gcagaagggtg atgatggagt cgctcatgtg cctgcgcgag ccggcgccga cgtcatcctg 180  
 acctacttcg cccgtcacgc cgccggggtg ctgtgcgga tggggcccaa gtaggaggcg 240

aggcccgccc gccattcctg ccctgcactg tcattgtgga gttgagcgat gag 293

<210> 513  
 <211> 279  
 <212> DNA  
 <213> Zea mays

<400> 513

actagattca catccaagat ttggagataa gaagacgtac cagatgaacc cagctaacta 60  
 cagagaagcc ctcatagaaa ccgcacgga cgaggcagaa ggagccgaca ttctgctagt 120  
 gaaaccggga ttgccgtact tggacattat ccgactgctt cgggatcatt cagccctacc 180  
 gagtgtgtgt taccaggtct cgggcgagta ctcgatgatc agagccggag gggccctggg 240  
 catggtggac gagcataagg tgatgatgga gtcgctcat 279

<210> 514  
 <211> 287  
 <212> DNA  
 <213> Zea mays

<400> 514

cggacgcgtg gggttcattt tatggccctt ccgagaagct ttagattcaa atccaagatt 60  
 ttggagataag acgacgtacc agatgaaccc agccaactac agagaagccc tcatagaaac 120  
 cgcagcggac gaggcagaag gagccgacat tctgctagtg aaaccgggat tgccgtactt 180  
 ggacatcatc cgactgcttc gggatcattc agccctaccg attgctgctt accaggtctc 240  
 gggcgagtac tcgatgatca aagccggcgg gggccctgggc atggtgg 287

<210> 515  
 <211> 427  
 <212> DNA  
 <213> Zea mays

<400> 515

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 tgttggtgtt aatagtttcg ttctctttcc taaagtcccc gatgcattga agtctccaac 180  
 aggagatgaa gcgtacaacg ataatggtct ggttccacgt acaatccgct tgctcaagga 240

caagttccct gatattgtta tctacacaga cgtcgcgta gacccttatt catctgatgg 300  
tcatgatggg attgtgaggg aagatgggtg aattatgaat gatgaaacag tttatcagtt 360  
gtgcaaacag gctgtttcac aggctcgtgc cgggtgctgat gttgtcagcc ctagtgcacat 420  
gatggat 427

<210> 516  
<211> 303  
<212> DNA  
<213> Zea mays

<400> 516

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tcccgatgca ttgaagtctc caacaggaga tgaagcgtac aacgataatg gtctgggttcc 120  
acgtacaatc cgcttgctca aggacaagtt ccctgatatt gttatctaca cagacgtcgc 180  
gtagaccct tattcatctg atggatcatga tggatattgtc aggggaagatg gtgtaattat 240  
gaatgatgaa acagttttatc agttgtgcaa acaggctggt tcacaggctc gtgccgggtgc 300  
tga 303

<210> 517  
<211> 277  
<212> DNA  
<213> Zea mays

<400> 517

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aaacagttta tcagttgtgc aaacaggctg tttcacaggc tcgtgccggg gctgatgttg 120  
tcagccctag tgacatgatg gatggccgga ttggagcact tcgctctgct ctggacgccg 180  
agggcttcca tgatgtctcc attatgtcct acaccgcaaa gtatgccagt tcattttatg 240  
gccctttccg agaagcttta gattcaaate caagatt 277

<210> 518  
<211> 300  
<212> DNA  
<213> Zea mays

<400> 518

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 acgtacaatc cgcttgctca aggacaagtt ccctgatatt gttatctaca cagacgtcgc 180  
 gttagaccct tattcatctg atgggtcatga tgggtattggt agggaagatg gtgtaattat 240  
 gaatgatgaa acagtttata agttgtgcaa acaggctggt tcacaggctc gtgccgggtgc 300

<210> 519  
 <211> 306  
 <212> DNA  
 <213> Zea mays

<400> 519

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 tattgtgagg gaagatgggtg taattatgaa tgatgaaaca gtttatcagt tgtgcaaaca 180  
 ggctgtttca caggctcgtg ccggtgctga tgttgtcagc cctagtgaca tgatggatgg 240  
 ccggattgga gcacttcgct ctgctctgga cgcggagggc ttccatgatg tctccattat 300  
 gtcccta 306

<210> 520  
 <211> 391  
 <212> DNA  
 <213> Zea mays

<400> 520

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 ggcacgggct gcttgacgag gtttacaggg gcgcgcgatg ttgggtgtta tagttttggt 180  
 ctctttccta aagttcccga tgcattgaag tctccaacag gagatgaagc gtacaacgat 240  
 aatgggtctg ttccacgtac aatccgcttg ctcaaggaca agttccctga tattgttata 300  
 tacacagacg tctctttttt ttcttagtca tctgatggtc actatgggat tgttacggaa 360  
 gatggggtaa ttatgaatga tgaaacactt t 391



<210> 521  
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 <212> DNA  
 <213> Zea mays  
  
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 tgacgaggtt tacaaggccc gcgatgttgg tgttaatagt ttcgttctct ttcctaaagt 120  
 tcccgatgca ttgaagtctc caacaggaga tgaagcgtaac aacgataatg gtctgggttcc 180  
 acgtacaatt c 191

<210> 522  
 <211> 128  
 <212> DNA  
 <213> Zea mays  
  
 <400> 522  
  
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 tgatgttg 128

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 <212> DNA  
 <213> Zea mays  
  
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 cacggccacg ccaccttttg aagctgttcc gccgtgccaa gagccgggccc aaggctgctc 180  
 tccacggccc tccgggtcag cagcgagcag gaggcggcg cggccgtcag ggcgccgtcc 240  
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 <212> DNA  
 <213> Zea mays

<400> 524

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ggagtggcca cgccacgcc acctttggaa gctgttccgc cgtgccaaaga gccggggccaa 180  
ggctgcgctc cacggccgctc cgggtcagca gcgagcagga ggcggcggcg gccgtcaggg 240  
cgccgtccgg gaggaccatc gaggagtgcg aggccgacgc cgtcgctggg aagttccctg 300  
ctccccgcc gctgggttagg ccg 323

<210> 525

<211> 252

<212> DNA

<213> Zea mays

<400> 525

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gagtggccac ggccacgcca ccttttgaag ctgttccgcc gtgccaaagag ccggggccaag 180  
gctgcgctcc acggccgctc gggtcagcag cgagcaggag gcggcggcg ccgatcaggc 240  
gccgtccggg ag 252

<210> 526

<211> 304

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<400> 526

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taggagntgg cacggccacg ccacctttgg aagctgttcc gccgtgccaa gagccggggc 180  
aaggctgcgc tccacggccg tccgggtcag cagcgagcag gaggcggcg cggccgtcag 240  
ggcgccgtcc gggaggacca tcgaggagtg cgaggccgac gccgtcgctg ggaagttccc 300  
tgct 304

<210> 527  
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 <212> DNA  
 <213> Zea mays  
  
 <223> unsure at all n locations  
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 taggagtggc cacggccacg ccacctttgg aagctgttcc gccgtgccaa gagccggggc 180  
 aaggctgcgc tccacggccg tccgggtcag cagcgagcag gaggcggcgg cggccgtcag 240  
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<210> 528  
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 <212> DNA  
 <213> Zea mays  
  
 <400> 528  
  
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 ctccaggcta ggagtggcca cggccacgcc acctttggaa gctgttccgc cgtgccaaaga 180  
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<210> 529  
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 <212> DNA  
 <213> Zea mays  
  
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 gc 302

<210> 530  
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 <212> DNA  
 <213> Zea mays  
  
 <400> 530  
  
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 ctccagtgtc cagctcggcc atggcggttca cgtctctctt ctcccagcc aacgttcaga 120  
 tgetccaggc taggagtggc cacggccacg ccacctttgg aagctgttcc gccgtgcaa 180  
 gagccgggcc aaggctgcgc tcaacggccg tccgggtcag cagcgagcag gaggcggcgg 240  
 cg 242

<210> 531  
 <211> 255  
 <212> DNA  
 <213> Zea mays  
  
 <400> 531  
  
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 gccaaaggctg cgctccacgg ccgtccgggt cagcagcaag caaaaggcgg cgacggacgt 240  
 caggcggcgt cccgg 255

<210> 532  
 <211> 280  
 <212> DNA  
 <213> Zea mays  
  
 <400> 532  
  
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 tgggcctggc ttctttgata gcttgcaatg aaaagaatga gcgaccatga gcaatttcaa 120  
 ttgtcactct tttggttaga aacagagggc ccaagtagag tgtggagagg tttgtttttg 180  
 tttcttcttt ctctgctaa ttctgctaga gaagggtgta cctggtgtag tggtagaccg 240  
 agtcatcagg tcgcggttgc gaagcatcca gtctccgtat 280

<210> 533  
 <211> 325  
 <212> DNA  
 <213> Zea mays

<400> 533

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 ctgtactatc agtgggaagaa atgcttcagg cagttgcccc aggtgctatt ggaatcgctt 180  
 gccgaagcaa cgatgacaaa atgatggagt atctgtcctc gttgaaccac gaggatacca 240  
 gactagctgt cacatgcgaa agagaattct tggcagttct tgatggcaac tgccgaactc 300  
 caattgcggc ctatgcttac cgtga 325

<210> 534  
 <211> 282  
 <212> DNA  
 <213> Zea mays

<400> 534

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 aagtgtttcc ttgcctagac aatctcacat tctctacaga tatccatcac tgaaagtagt 120  
 taacttcaga ggaaatgttc agacacgggt aaggaaactc actgaaggag atgtgtctgc 180  
 tacattgttg gcgctggctg gattaaggca gctaaatatt gcagaaaatg caacagctgt 240  
 actatcagtg gaagaaatgc ttccggcagt tgcccaagtg ct 282

<210> 535  
 <211> 282  
 <212> DNA  
 <213> Zea mays

<400> 535

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 gaactgaagg cgaaggctgg gcctggcttc ttcgatagcc ttcaatgaac agaattgtgcg 180  
 gccatgcgcg atttcagttg gcaccctttc gggtgaaaac gagggccata gtaggttggt 240

gagggggttg tttttgtttc ttcttttttt ctctactac ta 282

<210> 536  
 <211> 174  
 <212> DNA  
 <213> Zea mays

<400> 536

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 ggcaagaagt ggaccgtact ctttcgacga catggctcgag atgggcaaag acgctggcca 120  
 cgagctgaag gcgaaggctg ggccctggctt cttcgatagc cttcaatgaa caga 174

<210> 537  
 <211> 315  
 <212> DNA  
 <213> Zea mays

<400> 537

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 cgagctgaag gcgaaggctg ggccctggctt cttcgatagc cttcaatgaa cagaatgtgc 180  
 ggccatgcgc gatttcagtt ggcacccttt cgggtgaaaa cgagggccaa agtaggttgt 240  
 tcaggggctt gtttgtgata cttctgagtt tctctacta ctaggtcctg ctagagcctt 300  
 gtactaccac tcatg 315

<210> 538  
 <211> 338  
 <212> DNA  
 <213> Zea mays

<400> 538

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 acgagaagat gtaagagatg cattcatatg cttgactgca aatcgctcg cggagcttcc 120  
 tgctggcagt gttgttgga gtgcttcctt gcggagacaa tctcagattc tctacagata 180  
 tccatcactg aaagtagtta acttcagagg aaatgttcag acacgggttaa agaaactcaa 240  
 ggaaagagat gtgtctgcta cattgttggc gctggctgga ttaaagcggc taaaaatggc 300

agaaaatgca acagctgtac tatcagtgga agaaatgc 338

<210> 539  
 <211> 422  
 <212> DNA  
 <213> Zea mays

<400> 539

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 agatcgtcat cataaagacc acaggagaca tgatcttggg caaacccctt gcagatattg 180  
 gaggcaaggg tttattcacc aaggagatag atgatgcact cttgcaggga aggattgata 240  
 tagctgtgca ctctatgaaa gatgttccaa catatctacc tgaaggcaca atattgccct 300  
 gtaacctccc acgagaagat gtaagagatg cattcatatg cttgactgca aattcgctcg 360  
 cggagcttcc tgctggcagt gttgttggaa gtgcttcctt gcggagacaa tctcagattc 420  
 tc 422

<210> 540  
 <211> 280  
 <212> DNA  
 <213> Zea mays

<400> 540

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 tagctgagga gggggctatt gagatcgtca tcataaagac cacaggagac atgatcttgg 120  
 acaaaccctt tgcagatatt ggaggcaagg gtttattcac caaggagata gatgatgcac 180  
 tcttgcaggg aaggattgat atagctgtgc actctatgaa agatgttcca acatatctac 240  
 ctgaaggcac aatattgccc tgtaacctcc caccagaaga 280

<210> 541  
 <211> 255  
 <212> DNA  
 <213> Zea mays

<223> unsure at all n locations  
 <400> 541

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gcactctatg aaagatgttc caacatatct acctgaaggc acaatattgc cctgtaacct 120  
cccacgagaa gatgtaagag atgcattcat atgcttgact gcaaattcgc tcgcggantt 180  
cctgctggca gtgttggttg aagtgccttc ttgcggagac aatctcagat tctctacaga 240  
tatccatcac tgaaa 255

<210> 542  
<211> 269  
<212> DNA  
<213> Zea mays

<400> 542

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ctacctgaag gcacaatatt gccctgtaac ctcccacgag aagatgtaag agatgcattc 120  
atatgcttga ctgcaaattc gctcgcgag cttcctgctg gcagtgttgt tggaagtgct 180  
tccttgcgga gacaatctca gattctctac agatatccat cactgaaagt agttaacttc 240  
agaggaaatg ttcagacacg gttaaggaa 269

<210> 543  
<211> 334  
<212> DNA  
<213> Zea mays

<400> 543

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tggcctccct gactcccctg gcttcccca cggggccacg taccacactt tgacggcacc 120  
ctacaatgat gtgcaccgca gtgatcaaac tgttcgaaga caaaccctg gagattgcgg 180  
gcgtcctcct cgaaccagtt gttggcaacg ctcgtttcat ccctccagag acatggtttc 240  
cttaacgctc tccgcgactt gaccaggcag gatggtgcgc tccagggcgt cgatgaactg 300  
atgaccggct tccgtctgtc ttacggtgga cctc 334

<210> 544  
<211> 429  
<212> DNA  
<213> Zea mays



<223> unsure at all n locations  
 <400> 544

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tactggacgt  cgggtgcgaaa  gcagggcatg  atatgtgcgg  aggacatatc  agaggaatgt  180
ttggcttctt  cttcacccgg  gggcccgtcc  acaacttcgg  ggacgccaa  aagagcgaca  240
ccgagaagtt  cgggaggttc  taccgtggca  tgctggagga  gggcgtgtac  ttcgctccat  300
cgcagttcga  ggcggngttc  accagcttgg  cgcacacctt  ccaggacatc  gagaagaccg  360
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gagagcatt                                     429
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<210> 545  
 <211> 403  
 <212> DNA  
 <213> Zea mays

<223> unsure at all n locations  
 <400> 545

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tgccggaggac  atatcagagg  aatgttttgg  ttcttcttca  ccggcggggc  cgtccacaac  180
ttcgggggacg  ccaagaagag  cgacaccgag  aagttcggga  ggttctaccg  tggcatgctg  240
gaggagggcg  tgtacttcgc  tccctcgcag  ttcgaggcgg  gggttcaccg  cttggcgcac  300
acctcccagg  acatcgagaa  gaccgtcgag  gccgctgaga  aggttctgaa  gcggatatan  360
gggggtccgt  tcaagcaagc  atgcagagag  catttcctcg  tat                                     403
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<210> 546  
 <211> 312  
 <212> DNA  
 <213> Zea mays

<400> 546

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aacaggatgg tgcgctcctg gtcttcgatg aagtgatgac cggcttccgt ctgtcttacg 180  
 gtggagctca ggagtacttc gggatcacc ctagctgac gaccttgggc aagatcatcg 240  
 ggggtggcct ccccgttggt gcctacggtg ggagaaggga catcatggag atggttggcc 300  
 ccgaaggccg at 312

<210> 547  
 <211> 286  
 <212> DNA  
 <213> Zea mays

<400> 547

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 aagatcaccg gcgaactcgt ccgtgggata ctggacgtcg gtgcgaaagc agggcatgag 180  
 atgtgcggag gacatatcag aggaatgttt ggcttcttct tcaccggcgg gcccgccac 240  
 aacttcgggg acgccaagaa gagcgacacc gagaagtctg ggaggt 286

<210> 548  
 <211> 285  
 <212> DNA  
 <213> Zea mays

<400> 548

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 tcagcgggaa ccctctagcc atgaccgctg ggatccacac gctcaagcgg ctgacagagc 180  
 ccggcaccta cgagtacttg gacaagatca ccggcgaact cgtccgtggg atactggacg 240  
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<210> 549  
 <211> 243  
 <212> DNA  
 <213> Zea mays

<400> 549

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gacgaccttg ggcaagatca tcgggggtgg cctccccgtt ggtgcctacg gtgggagaag 120  
 ggacatcatg gagatggttg cccccgcage cgatgtacca ggcaggaact ctcagcggga 180  
 accctctagc catgaccgct gggatccaca cgctcaagcg gctgacagag cccggcacct 240  
 acg 243

<210> 550  
 <211> 247  
 <212> DNA  
 <213> Zea mays

<400> 550

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 ctgacgtgac gaccttgggc aagatcatcg ggggtggcct cccggttggt gcctacggtg 180  
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 cagcggg 247

<210> 551  
 <211> 223  
 <212> DNA  
 <213> Zea mays

<400> 551

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 gatcacccgc gaactcgtcc gtgggatact ggacgtcggg gcgaaacagg gcatgagatg 180  
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<210> 552  
 <211> 218  
 <212> DNA  
 <213> Zea mays

<400> 552

gcacgaggca gggccgatgt accaggcagg aactctcage gggaaccctc tagccatgac 60  
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gatcaccggc gaactcgtcc gtgggatact ggacgtcggc gcgaaagcag ggcatgagat 180  
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<211> 275  
<212> DNA  
<213> Zea mays

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ggttctaccg tggcatgctg gaagaggcgt gtacttcgct ccctcgcagt tcgaggcggg 180  
gttcaccagc ttggcgcaca cctcccagga catcgagaag accgtcgagg ccgtaatgaa 240  
ggttctgaag cggatatagg gggtagcctt caagc 275

<210> 554  
<211> 252  
<212> DNA  
<213> Zea mays

<400> 554  
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ggaggagggc gtgtacttcg ctccctcgca gttcgaggcg gggttcacca gcttggcgca 120  
cacctccag gacatcgaga agaccgtcga ggccgctgag aaggttctga agcggatata 180  
gggggtccgc ttcaagcaag catgcagaga gcatttcctc gtatctacgt tcttgtactc 240  
ttagttctat at 252

<210> 555  
<211> 295  
<212> DNA  
<213> Zea mays

<400> 555  
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agtacttgga caagatcacc ggcgaactcg tccgtgggat actggacgtc ggtgcgaaag 120  
cagggcatga gatgtgcgga ggacatatca gaggaatgtt tggcttcttc ttcaccggcg 180

ggcccgtcca caacttcggg gacgccaaga agagcgacac cgagaagttc gggaggttct 240  
acgtggcatg cctggagagg gcgtgtactt cggctccctc gcagttcgag gcggg 295

<210> 556  
<211> 331  
<212> DNA  
<213> Zea mays

<400> 556

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gatatagggg gtccgcttca agcaagcatg cagagagcat ttctctgtat ctacgttctt 180  
gtactcttag ttctatatgc caccgaggtt ttgtattgtg cagcagcagg acagcttctg 240  
taagttcctc tttctgaatt agtgggtctt gtttttgtca gtgccaataa atctctggtc 300  
cacgattacg gtttcgttgt tgtactgatg t 331

<210> 557  
<211> 423  
<212> DNA  
<213> Zea mays

<400> 557

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cggggtctcg gcccggccgg ccgcgcgag gagggcttct gcgggacgcc gcgctcggct 180  
gtcggtggtg cgggcccgcga tatccctcga gaagggcgag aaggcgta ca cgggtgcagaa 240  
gtccgaggag atcttcaacg ccgccaagga gctgatgcct ggaggtgtta actcgccagt 300  
ccgagccttc aaatctgttg gtgggcagcc agtagttttc gactctgtaa agggttctcg 360  
tatgtgggat gttgatggga atgagtacat tgattacgtt ggttcctggg gtccctgcaat 420  
cat 423

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<211> 302  
<212> DNA  
<213> Zea mays

<400> 558

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tgctcgggtgt gcgggccgcg atatccctcg agaagggcga gatagcgtac acggtgcagc 120  
agtccgagga gatcttcaac gccgccaatg agctgatgcc tggaggtgtt aactcgccag 180  
tccgagcctt caaatctgtt ggtgggcagc cagtagtttt cgactctgta aagggttctc 240  
gtatgtggga tgttgatggg aatgagtaca ttgattacgt tggttcctgg ggtcctgcaa 300  
tc 302

<210> 559

<211> 305

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<400> 559

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cgccgcgctc ggctgtcggg ggtgcggggc gcgatatccc tcgagaangg cgagaaggcg 180  
tacacggtgc agaagtccga ggagatcttc aaggccgcca aggagctgat gcctggaggt 240  
gttaactcgc cagtccgagg cttcaaatct gttggtgggc agccagtagt ttcgactctg 300  
taaag 305

<210> 560

<211> 276

<212> DNA

<213> Zea mays

<400> 560

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cgccgtggcg tccggggtct cggcccgcc ggccgcgcgc aggagggctt ctgcgggacg 120  
ccgcgctcgg ctgtcgggtg tgcgggcgc gatatccctc gagaagggcg agaaggcgta 180  
cacggtgcag aagtccgagg agatcttcaa cgccgccaa gagctgatgc ctggaggtgt 240  
taactcgcca gtccgagcct tcaaatctgt tgggtg 276

<210> 561  
 <211> 225  
 <212> DNA  
 <213> Zea mays  
  
 <400> 561  
  
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 ggtgggtgcgg gccgcgatat ccctcgagaa gggcgagaag gcgtacacgg tgcagaagtc 120  
 cgaggagatc ttcaacgccg ccaaggagct gatgcctgga ggtgttaact cgccagtcgg 180  
 agccttcaaa tctgtatgtg ggcagccagt agttttcgac tctgt 225

<210> 562  
 <211> 276  
 <212> DNA  
 <213> Zea mays  
  
 <400> 562  
  
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 cccaagtatg gccggagcag cagcagccgc cgtggcgctcc ggggtctaca cccggccgga 120  
 cgcgccgagg agggctttctg cgggacgccg cgctcggtcg tcggtgggtgc gggccgcgat 180  
 atccctcgag aagggcgaga aggcgtacac ggtgcagaag tccgaggaga tcttcaacgc 240  
 cgccaaggag ctgatgcctg gaggtgttaa ctcgcc 276

<210> 563  
 <211> 251  
 <212> DNA  
 <213> Zea mays  
  
 <400> 563  
  
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 tgcgggacgc cgcgctcggc tgctcggtggt gcggggccgcg atatccctcg agaagggcga 180  
 gaaggcgtac acggtgcaga agtccgagga gatcttcaac gccgccaagg agctgatgcc 240  
 tggaggtgtt a 251

<210> 564  
 <211> 337

<212> DNA  
 <213> Zea mays  
 <400> 564  
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 gcctcgtgcg cgcattcacc gggcgggaga agatcatcaa gttcgaaggc tgctaccatg 120  
 gccatgccga ttcttctctt gtcaaagccg gcagtgggtg tgccaccctt ggcatcactg 180  
 actccctcgt cgtccccaag ggggccacct acgagacttt gacggcaccc tacaatgatg 240  
 tcgcggcagt gaagaaactg ttcgacgaca acgcggggga gattgctgcc gtcttctcgt 300  
 agtcagttgt tggcaacgct ggtttcaatc cccaca 337

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 gagatggtca tctctgccgt gccaaagtac gaaatgggcc gctttgtcaa ctccaggaca 120  
 gaagcctgca tgggagcgct ccgcctcgtg cgcgcattca ccgggcggga gaagatcatc 180  
 aagttcgaag gctgctacca tggccatgcc gattccttcc ttgtcaaagc cggcagtggt 240  
 gttgccaccc ttggcctccc tga 263

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 <212> DNA  
 <213> Zea mays  
 <400> 566  
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 gtgctccatg ttgtctggag aacgtattgg ctgagatggt catctctgcc gtgccaagta 120  
 tcgaaatggt ccgctttgtc aactcaggga cagaagcctg catgggagcg ctccgcctcg 180  
 tgcgcgcatt caccgggcgg gagaagatca tcaagttcga aggctgctac catggccatg 240  
 ccgattcctt ccttgtcaaa gccggcagtg gtgttgccac ccttggcctc cctgactccc 300  
 ctggcgctccc 310



<210> 567  
 <211> 124  
 <212> DNA  
 <213> Zea mays  
 <400> 567  
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 ccgggcggga gaagatcatc aagttcgaag gctgctacca tggccatggc gaatccttcc 120  
 ttgt 124

<210> 568  
 <211> 295  
 <212> DNA  
 <213> Zea mays  
 <223> unsure at all n locations  
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 tgccaccctt ggctccctg actcccctgg cgteccacac ggggccacca cctgagactt 120  
 tgacangaac cctacaatga tgtcgcggca gtgaagaaac tgttcgagga caacgcgggg 180  
 gagattgctg ccgtcttctt cgagccagtt gttggcaacg ctggtttcat cccccacag 240  
 cctggtttcc ttaacgctct ccgcgacttg accaaacagg atggtgcgct cctgg 295

<210> 569  
 <211> 253  
 <212> DNA  
 <213> Zea mays  
 <400> 569  
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 tttgacggca ccctacaatg atgtcgcggc agtgaagaaa ctgttcgagg acaacgcggg 120  
 ggagattgct gccgtcttcc tcgagccagt tgttggaac gctggtttca tccccacaca 180  
 gcctggtttc cttaacgctc tccgcgactt gaccaaacag gatggtgcgc tcctggtctt 240  
 cgatgaagtg atg 253

<210> 570

<211> 363  
 <212> DNA  
 <213> Zea mays

<400> 570

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agaattcttt gatgcagaaa ttagaaagct gaagctacaa ccatattatt tcgctattgt 120
tgttactgag aatgttctac agaaggaaaa ggaccacatt gagggctttg cacctgaggt 180
agcttggggtt actaaatctg ggaaatctga cctggaagca ccgattgcaa gtgcgcccac 240
aggtgagctt gtaatgaacc cggttttctc catatggata agacgccacc gagacttacc 300
cttgaggtgt aatcaatggt gtcattgttg tagatgggag tttagcgatc cgactccttt 360
cat 363
  
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<210> 571  
 <211> 312  
 <212> DNA  
 <213> Zea mays

<400> 571

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gctgcgaact cctggatgga aattcaatca ctatgagatg aaaggggttc ctgtaagaat 120
atagataggt ccacgtgatg tcacaaataa gagtggttg gtttctagtc gtgatgtccc 180
tggaagcaa ggaaaggagt ttggagtgtc tatggagcct tcgatattgg tgaaccatat 240
aaatggtcgt ctagatgaca tacaagcatg ccttttacag aaggccttaa aatccgtgat 300
agtaacattg tc 312
  
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<210> 572  
 <211> 270  
 <212> DNA  
 <213> Zea mays

<223> unsure at all n locations  
 <400> 572

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gccacccgt ccggccaaga tggctcctga gggctaagaa aagctgtaca ccaaggtcaa 120
gagcattcac gacagcctga tcgaggctgg tgtccgcgtc ggtccgact accgtgaggg 180
  
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ctactcccc ggatggaagt tcaacgactg ggagctcaag ggtaatcctc ttctaacca 240  
attccgtccc aaggattccc aaaaaggttt 270

<210> 573  
<211> 427  
<212> DNA  
<213> Zea mays

<400> 573

cccacgcgtc cgcccacgcg tccgcccacg cgcccgccca cgcgtccgtg ggaaaatgtg 60  
gccagatgct tctgatactg atgcttcctc tcaactataag cttccgttct caagaactgt 120  
ctacattgag aaaactgatt ttgccttaa ggactcaaaa gactactatg ggctggcccc 180  
tggtaaactct gtcattgctaa ggtatgcgtt cccataaaa tgcacagacg ttatctatgg 240  
tgatactcct gatgatattg ttgaaattcg agcagaatat gatcctttga agacttctaa 300  
acttaagggg gttctgcact ggggttgctga gccagcacct ggtgtcgaac cattgaaggt 360  
ggaagtaaga ctattcgaga aattgttcat gtcagagaat cctgctgaat tggaggattg 420  
gcttggt 427

<210> 574  
<211> 273  
<212> DNA  
<213> Zea mays

<400> 574

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caagcgaaag cttcttttgt ttgtacaaaa caagaaggct gaagattgga cagacccacg 120  
ttttcccaact gtccaaggca tagtacgtcg gggcttgaag gttgatgcat tgatacagtt 180  
tataactcaa cagggtgctt caaaaaatct gaatctcatg gaatgggata aactctggac 240  
aatcaacaag aagataattg atccagtgtg cgc 273

<210> 575  
<211> 267  
<212> DNA  
<213> Zea mays

<400> 575

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 tcattatgga aagagatggt taatggaact gaaaggggca tgcagtgtctg tgtacgggggt 120  
 aaacttgaca tgcaggatcc taacaagtca ctcagggatc ctgtttacta ccgctgtaat 180  
 actgatccac accatcgtgt tggttcgaag tacaaggctc atccaacata tgactttgcg 240  
 tgcccatttg tcgatgcatt ggagggg 267

<210> 576  
 <211> 380  
 <212> DNA  
 <213> Zea mays

<400> 576  
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 tccagtttga gcggttgggt tacttcgccg tggatactga ctccacacct gagaaactcg 180  
 tgttcaacag aactgttacc ctccgtgatt cgttcgggaa agctggaccc aagtgactgt 240  
 tcagtgtaat ttagggaggg cgctggtttt gatcggttgc agaagcgcac ctgaactata 300  
 caagttgtga agaaaatggt cgtctaatac agaacagttt aaagggcctt actctttata 360  
 aaatttaggg ttttttaaaa 380

<210> 577  
 <211> 373  
 <212> DNA  
 <213> Zea mays

<400> 577  
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 ctctccaggt tggaagtatt ctactggga aatgaaagggt gttccattga gaattgagat 120  
 tggtcacaaa gatctggcaa acaaacagggt acgcattgtc cgccgggaca acggtgcaaa 180  
 ggttgacatt ccggtgacca atttggttga agatgttaaa gtgttattgg atgagattca 240  
 aaaaaatctg ttcaaacag ctcaagaaag gagagatgca tgtgttcagg tcgtcaactc 300  
 ttgggatgaa ttcacaactg ctctgaataa caaaagggtg atcttggtc cttggtgcga 360  
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<210> 578  
 <211> 299  
 <212> DNA  
 <213> Zea mays

<400> 578

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 aactgtttac aactcaatc aatctgggat tcgagcggat caggacaccc gtgaaaatta 120  
 ctctccaggt tggaagtatt ctactggga aatgaaagggt gttccattga gaattgagat 180  
 tgggtccaaaa gatctggcaa acaaacaggt acgcattgtc cgccgggaca acggtgcaaa 240  
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<210> 579  
 <211> 286  
 <212> DNA  
 <213> Zea mays

<400> 579

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 caccctgtaa aattactctc cagggttgaa gtattccac tgggaaatga aagggtgttc 180  
 attgagaatt gagattggtc caaaagatct ggcaaacaaa cagggtgcgtg ttgtccgccg 240  
 ggacaacggt gcaaagggtg acatccctgt gaccaatttg gttgaa 286

<210> 580  
 <211> 313  
 <212> DNA  
 <213> Zea mays

<400> 580

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 gtgccttata aggatgctga cacaactgcc ataaaggag cctgcgaatc aactgtttac 120  
 aactcgatc aatctggaat tagagcggat caggacaccc gtgaaaatta ctctccaggt 180  
 tggaagtatt cccactggga aatgaaagggt gttccattga gaattgagat tgggtccaaaa 240  
 gatctggcaa acaaacaggt gcgtgttgtc cgccgggaca acggtgcaaa gggttgacatc 300

cctgtgacca att 313

<210> 581  
<211> 307  
<212> DNA  
<213> Zea mays

<400> 581

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tccaggtaat tgtgattcca gtgccttata aggatgctga cacaactgcc ataaaggag 120  
cctgcgaatc aactgtttac aactcgcgc aatctggaat tagagcggat caggacaccc 180  
gtgaaaatta ctctccaggt tggaagtatt cccactggga aatgaaagggt gttccattga 240  
gaattgagat tggtcacaaa gatctggcaa acaaacagggt gcgtgttgtc cgccgggaca 300  
acggtgc 307

<210> 582  
<211> 227  
<212> DNA  
<213> Zea mays

<400> 582

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tttggttgaa gaggttaaag tggtactgga tgagattcaa aaaaatctgt tcaaacagc 180  
ccaagaaaag agagatgcct gtgttcatgt cgtgaacact tgggatg 227

<210> 583  
<211> 427  
<212> DNA  
<213> Zea mays

<400> 583

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caacagcgaa cacaagaggt ggctggggct ggcctaggag gggaggaaga agagtgccat 180  
cacacgaaaa ccatgacctc acagcattgg tgcagtaaca ttctactatt tagagcctat 240

gatcaggctt taaagagtgg ctggggctgg cctaggaggg gaggaagaag agtgccatca 300  
ctaacaaaac agccctcga accatggttg ttttgcgacc tctaaagggtg gtaataacta 360  
acttgaaga aggaaaagta ctagaccttg atggcaaat gtggcctgat gcttctgata 420  
ctgatgc 427

<210> 584  
<211> 499  
<212> DNA  
<213> Zea mays

<400> 584  
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gcgcggccaa gggcggcgga gggaagaaga aggaggtgaa gaaggagacg aagctcggga 180  
tggcctataa gaaggacgac aacttcgggg agtggtactc cgaggttggt gttaacagtg 240  
aatgattga gtactatgac atttctggtt gttatatatt gaggccatgg gcgatggaaa 300  
tctgggagct actgaaagaa ttctttgatg cagaaattaa aaagctgaag ctcaaaccat 360  
attatttccc tttgtttggt actgagaatg ttctacagaa ggaaaaggac cacattgagg 420  
gctttgcacc tgaggtagct tgggttacta aatctgggaa atctgacctg gaagcaccga 480  
ttgcaatccg cccacaag 499

<210> 585  
<211> 284  
<212> DNA  
<213> Zea mays

<400> 585  
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gaattctttg atgcagaaat taaaaagctg aagctcaaac catattattt ccctttgttt 120  
gttactgaga atgttctaca gaaggaaaag gaccacattg agggctttgc acctgaggta 180  
gcttgggtta ctaaactctgg gaaatctgac ctggaagcac cgattgcaat ccgccccaca 240  
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<210> 586  
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 <212> DNA  
 <213> Zea mays  
  
 <400> 586  
  
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 agccaacaag gaagaccgtc tcaggaaagc gatggaggca cagacaatca tcgccgaaga 180  
 gctgaaacgg tttgaggcgt ggcgggactc gctggagacc gttccaacca tcaagaagct 240  
 gaggtcttac gccgacagga tccgggcctc g 271

<210> 587  
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 <212> DNA  
 <213> Zea mays  
  
 <400> 587  
  
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 tcttgcttct gagcttaggg aacacctatt catgctgcgt gacagtgatg ctacacgcca 180  
 tctgtttgag gtatcggctg ggttggactc tctggttctc ggtgaaggac 230

<210> 588  
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 <212> DNA  
 <213> Zea mays  
  
 <400> 588  
  
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 agaagtagtg gactggatgt cgaagaaaag tggtattccc gttccgagc ttagggagca 180  
 cctgttcac ttgcgaacag tgatgccaca cgccatctgt ttgaggtgt 229

<210> 589  
 <211> 492  
 <212> DNA  
 <213> Zea mays



<223> unsure at all n locations  
 <400> 589

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gggagccacg cgtccgaaa tgtaacgca ttaaaggta tacggtatca gtaaacctta 120
caagtgtgat gccaaaggaa aacggcatca gctgacacat tgctatatc ctgtttattt 180
cgtccgaata aagtatataa cttagaaggg gggctcttgc cccacagcag ctcaagcaaa 240
aatgtacaaa gaaaagcagc tcgagtagag agaatttggc actctctcga cagattgagc 300
tgctgccatg gcgctaattc acgacacatt tgatgtctcg gcaagacggg gaggagctca 360
gtaagtgaga tgataaaaaa atagaatcag gttggagggt aagtatacac gggtagaaaa 420
attgcctcct tggccttaat tntgggtcct ctccaccttg gccttgatct tctgctcgat 480
gattgccttc tc 492
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<210> 590  
 <211> 313  
 <212> DNA  
 <213> Zea mays

<400> 590

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gtaaaccctt tttgaaaagg ctctgtcct aatacttgta taaaatgaaa attatgtgg 120
agccctatca tggaaccgaa gtatcagaga agtagttgac tggatgtcaa agaaaagtgg 180
tattcctgct tctgagctta aggagcacct attcatgctg cgtgacagtg atgctacacg 240
ccatctgttc taagtatcag caaggttgga ctctttggtt ctcggtgaac gacaaatcct 300
tgctcaagtc aaa 313
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<210> 591  
 <211> 457  
 <212> DNA  
 <213> Zea mays

<400> 591

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cgaggaccct cgcaccaaga actgagcggg aagagaggta gagaggcaag cgcacgagag 120
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tttctgctcc tagtctcgtc tcgccccgcc tccgtctcct ttccctctct ggttctctct 180  
 ctgogattct cgtcgcattg gttccgttcc ctcacgaaag gcggtagctt tctgtcttcc 240  
 ctgatctatc tagataatgg cgaccacgac gtcagcgacc accgccgcag cagcagccgc 300  
 caccatcgcc aagccgcggg ggtcgtcgtc ggacctctgc cagaggggtg cggcgggcgg 360  
 caggcgggtgc tccgggggtg tgccgtgcga cgccgcgggc gtggaggccc aggcgcattgc 420  
 cgtggcaaat gcggccagcg tcgccgccct cgagcag 457

<210> 592  
 <211> 267  
 <212> DNA  
 <213> Zea mays

<400> 592  
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 agatatagag atcgtgtaca ggctctcttc agacatgtat caagctgctg ctgaagctga 120  
 tgctgtgttc accagcaccg catctgaaac ttcattgttc gcaaaagaac acgcagagge 180  
 actccccct gtctctgata ctatgggagg tgttcgcctg tttgtcgaca tatctgtccc 240  
 caggaatgtc agcgcattgt tgtctga 267

<210> 593  
 <211> 264  
 <212> DNA  
 <213> Zea mays

<400> 593  
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 gaaaggggtg atgctattcg tgaggagatg aaagatatag agatcgtgta caggcctctc 120  
 tcagacatgt atcaagctgc tgctgaagct gatgtcgtgt tcaccagcac cgcattctgaa 180  
 acttcattgt tcgcaaaaga acacgcagag gcaactcccc ctgtctctga tactatggga 240  
 ggtgttcgcc tgtttgcga cata 264

<210> 594  
 <211> 310  
 <212> DNA  
 <213> Zea mays

<400> 594

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atgccatccg cgaggagatg aaaggatatcg agattgtgta caggcctctt tcagagatgt 120

acgaagctgc tgctgaagct gatgtcctat tcacgagcac tgcattctgaa accccattgt 180

tcacaaaaga gcacgcagag gcacttccca caatttccga tgccatggat ggtgcccggc 240

tttttgtcga catatctgtc ccaaggaatg tcagcgcgtg cgtctctgaa attggctccg 300

cgcgagtata 310

<210> 595

<211> 290

<212> DNA

<213> Zea mays

<400> 595

gtgggtcaacc gttcagcaca aagggtggat gccatccgcg aggagattaa agctatcgag 60

attgtgtaca ggcctctctc ggagatgtat gaagctgctg ctgaagctga cgtcgtgttc 120

acgagcaccg catctgaaac ccattgttc acaaaagagc acgcagatgc acttcccact 180

gtttctgatg ccatgggcgg tgtccggctc tttgtcgaca tatctgtccc aaggaatgtc 240

agcgcgtgtg tctctgaaat tggctccgcg cgagtgtaca atgttgatga 290

<210> 596

<211> 168

<212> DNA

<213> Zea mays

<400> 596

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tatcgagatt gtgtacaggc ctctttcaga gatgtacgaa gctgctgctg aagctgatgt 120

cctattcacg agcactgcat ctgaaacccc attgttcaca aaagagca 168

<210> 597

<211> 254

<212> DNA

<213> Zea mays

<400> 597

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agacaatcat cgccgaagag ctgaaacggg ttgaggcgtg gcgggactcg ctggagaccg 120  
ttccaacat caagaagctg aggtcttacg ccgacaggat ccgggcctcg gagctcgaga 180  
agtgcctgca gaagatcggg gacgacgctc tcaccaagaa gacgaggaga gccatcgagg 240  
agctaagcac cggc 254

<210> 598  
<211> 270  
<212> DNA  
<213> Zea mays

<400> 598

cggctcgagg aaagaggtgg tggaagccaa caaggaagac cgtctcagga aggcaatgga 60  
ggcgcagaca atcatcaccg aagagctgaa acggtttgag gcatggcggg actcgctgga 120  
gaccgttcca accatcaaga agctgaggtc atatgccgac aggatccgag cctcagagct 180  
cgatgagtgc ctacagaaga tcggggatga cgttctcacc aagaagatga ggagagccat 240  
cgaggagcta agcaccggca tcgtgaacaa 270

<210> 599  
<211> 422  
<212> DNA  
<213> Zea mays

<400> 599

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gcctgcagaa agtaggtgag gacgccctca ccaagaagat gaggagagcc atcgaggagc 120  
tgagcaccgg catcgttaac aagctcctcc atggcccgtc gcagcacctg aggtgcgacg 180  
gcagcgacag ccgcaccctt gacgagacgc tcgagaacat gcacgccctc aaccggatgt 240  
tcagcctcga catggagaag gcgatcatcg agcagaagat caaggccaag gtggagaaga 300  
cacaaaactg aggccaggaa gcaatttttc taccaccatt atctatatat atagcgtctc 360  
caatctcatt ccattttttt atcctttcac tcagttagcc cttcccctgc tactgtgat 420  
cg 422

<210> 600

<211> 282  
 <212> DNA  
 <213> Zea mays  
  
 <400> 600  
  
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 accaagaaga tgaggagagc catcgaggag ctgagcaccg gcatcgttaa caagctcctc 120  
 catggcccg c tgcagcacct gaggtgcgac ggcagcgaca gccgcaccct tgacgagacg 180  
 ctcgagaaca tgcacgctct caaccggatg ttcagcctcg acatggagaa ggcgatcatc 240  
 gagcagaaga tcaaggccaa ggtggagaag acacaaaact ga 282

<210> 601  
 <211> 262  
 <212> DNA  
 <213> Zea mays  
  
 <400> 601  
  
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 caagctcctc cacggcccg c tgcagcacct gaggtgcgac ggtagtaaca gccgcaccct 120  
 tgatgagacg ctcgagaaca tgcacgctct caaccggatg ttcagcctcg acacggagaa 180  
 ggcgatcatc gagcagaaga tcaaggccaa ggtggagaag acccagaatt gaggcctgga 240  
 gtcaatTTTT ctaccgtgt at 262

<210> 602  
 <211> 288  
 <212> DNA  
 <213> Zea mays  
  
 <400> 602  
  
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 aagctcctcc atggcccgct gcagcacctg atgctggacg gcagcgacag ccgcaccctt 120  
 gacgagacgc tcgagaacat gcacgccctc aaccggatgt tcagcctcga catggagaag 180  
 gcgatcatcg agcagaagat caaggccaag gtggagaaga cacaaaactg aggccaggaa 240  
 gcaatTTTTt taccaccatt atctatatat atagcgtctc caatctca 288

<210> 603

<211> 139  
 <212> DNA  
 <213> Zea mays  
 <400> 603  
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 caatTTTTtct accaccatta tctatatata tagcgtctcc aatctcattc catttttttta 120  
 tccttttact cagtgagcc 139

<210> 604  
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 <212> DNA  
 <213> Zea mays  
 <400> 604  
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 tcatcttgcg aagcagtgat gccacacgcc atctgtttga ggtgtcagct ggccttgact 120  
 ctttggttct cgtgaagga caaatccttg ctcagggttaa acaagttgtg aggagtggac 180  
 agaacagtgg aggcttggga aagaacattg ataggatggt caaggatgca atcactgctg 240  
 gaaagcgtgt ccgctgcgag accaacatat catctgggtgc tgtttctgtc agttcagcgg 300  
 cggttgaact ggccctgatg aagcttccga agtctgaagc actgtcagct aggatgcttc 360  
 tgattggtgc tggtaaaatg ggaaagctag tgatcaaaca tctggttgcc aaaggatgca 420  
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<210> 605  
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 <212> DNA  
 <213> Zea mays  
 <400> 605  
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 tcaaggatgc aatcactgct ggaaagcgtg tccgcagcga gaccaacata tcatctggtg 120  
 ctgtttctgt cagttcagcg gcggttgaac tggccctgat gaagcttccg aagtctgaag 180  
 cactgtcagc taggatgctt ctgattggtg ctggtaaaat gggaaagcta gtgatcaaac 240  
 atctggttgc caaaggatgc aagaaggttg ttgtggtgaa ccgctccgtg gaaaggggtg 300

atgctattcg tgaggagatg aa

322

<210> 606

<211> 310

<212> DNA

<213> Zea mays

<400> 606

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tcagggttaaa caagttgtga ggagtggaca gaacagtgga ggcttgggaa agaacattga 180

taggatgttc aaggatgcaa tctctgctgg aaagcgtgtc cgctgcgaga ccaacatata 240

atctggtgct gtttctgtca gttcagcggc ggttgaactg gccctgatga agcttccgaa 300

gtctgaagca 310

<210> 607

<211> 298

<212> DNA

<213> Zea mays

<400> 607

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gcttgggaaa gaacatcgat aggatgttca aggatgcaat cactgctgga aagcgtgtcc 120

gcagcgagac caacatatca tctggtgctg tttctgtcag ttcagcggcg gttgaactgg 180

ccctgatgaa gcttccgaag tctgaagcac tgtcagctag gatgcttctg attggtgctg 240

gtaaaatggg aaagctagtg atcaaacatc tggttgccaa aggatgcaag aaggttgt 298

<210> 608

<211> 300

<212> DNA

<213> Zea mays

<400> 608

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ttgaactggc cctgatgaag cttccgaagt ctgaagcact gtcagctagg atgcttctga 120

ttggtgctgg taaaatggga aagctagtga tcaaacatct ggttgcgaaa ggatgcaaga 180

aggttgttgt ggtgaaccgc tccgtggaaa ggggtggatgc tattcgtgag gagatgaaag 240  
 atatagagat cgtgtacagg cctctctcag acatgtatca agctgctgct gaagctgatg 300

<210> 609  
 <211> 234  
 <212> DNA  
 <213> Zea mays

<400> 609

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 attggtgctg gtaaaatggg aaagctagtg atcaaacatc tgggtgcaa aggatgcaag 120  
 aaggttgttg tggatgaaccg ctccgtggaa aggggtggatg ctattcgtga ggagatgaaa 180  
 gatatataga tcgtgtacag gcctctctca gacatgtatc aagctgctgc tgaa 234

<210> 610  
 <211> 278  
 <212> DNA  
 <213> Zea mays

<400> 610

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 cctgatctgc aagtccgtcg cgatgcgaca tcgacgcacc tgggagcggg catgagagga 120  
 gaagctcaag gcgttcgagc tcgcactggc gacggcagac gccacgttct agaacctcga 180  
 ctcgctcgag atctcactga cggacgtgag ccactacttc gactcggacc cgatcaagct 240  
 cgtgcattgg ctgctcaaag acgggcgagc ggcgtcct 278

<210> 611  
 <211> 251  
 <212> DNA  
 <213> Zea mays

<400> 611

gaagatgtgt acaggggaag tgacaagggc atactggctg acgtcgagct tctgaggcag 60  
 atcactgagg cttcgcgcgg cgccatcacc gccttcgttg agaagaccac aaacagcaaa 120  
 gggcaagtgc tcaatgttac caacaacctc agcaagatac ttggtttcgg tctgtcggaa 180  
 ccatgggtgc agtacctgtc cacgaccaag ttcgtcagag cggacagaga gaagatgagg 240



gttctgtttg g 251

<210> 612  
<211> 126  
<212> DNA  
<213> Zea mays

<400> 612

gttctagatc gccagtctct tctcctcctt agttttcctc ttcagttctg cccatctgat 60  
ggctctagtg cagagctgct ccactctctt gtgcaatgca tgtgacttcc ctgtcctggg 120  
gtcccg 126

<210> 613  
<211> 296  
<212> DNA  
<213> Zea mays

<400> 613

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gccttgatcat cgaactgaga caagtgtatc cacgggattt gccaaaggaaa ttgcaagggt 120  
tgcccagggg aaatattatt acctccctaa tgcttcagat gctgtaattt ctgctgactc 180  
caagaccgcc ctgacagact tgaagagctc atgattttgc agcagcggca cccgttttct 240  
gtaccttttg atagggatgg tgaaccttca ttcattgcagt aatttttgcg taggcc 296

<210> 614  
<211> 286  
<212> DNA  
<213> Zea mays

<400> 614

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atgaccgcgt tgaagcagtg gatattgcaa cacggtttca ggagtctagc aaagaagttt 120  
tcaaattggt ggaagaaaaa actgaaactg caaaaactca gataattttt gcaagagagt 180  
atctgaagga tggttactatt agcacagagc agctcaaata tcttgatcatg gaagctatac 240  
gaggtggctg tcaggggcat cgtgctgagt tgtatgctgc ccgagt 286

<210> 615

<211> 239  
 <212> DNA  
 <213> Zea mays

<400> 615

cggacgcgtg gcaaccacgg ctgccttgaa gagcgccaag atcgtcgtgg accgtctcct 60  
 ggagaggcag acggctgaca atggcggcaa gtaccctgag acggtcgcac ttgtcctgtg 120  
 gggcaccgac aacatcaaga cctatggtga gtcactagcc cagggtgctgt ggatgattgg 180  
 agttcggcca gttgccgaca ccttcggccg tgtcaaccgt gtggagcctg tcagccttg 239

<210> 616  
 <211> 233  
 <212> DNA  
 <213> Zea mays

<400> 616

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 agacatcgga ggagaacctg gacaggctca gggagctcta ctgggaggtt gaagacaaga 120  
 ttgaggggat tgaccggtaa accgatttgc cagattcaaa ggaatgagaa gcttgggaact 180  
 cttgtgtctc attgaggctc ttgtacaatg tgtgtgtagc ttatatatat ata 233

<210> 617  
 <211> 302  
 <212> DNA  
 <213> Zea mays

<223> unsure at all n locations  
 <400> 617

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 gtatcatgac gatcangaga atctccagca gcagatatca tctgcacgga gtaaccttgg 120  
 cgctgtgcag attgaccatg acctccgtgt caagatatcc aagggtgtgt ctgagttgaa 180  
 cgttgatgga ctgagagggtg acattgtgac taacatggct gccaaaggcgc tggctgcgtt 240  
 gaaaagaatg gacagcgtca ccgtggagga cattgctact gtcattccca actgcttgag 300  
 gc 302

<210> 618  
 <211> 261

<212> DNA  
 <213> Zea mays  
  
 <223> unsure at all n locations  
 <400> 618  
  
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 gaagcttgcc ctcgagggaa gctacgtcga gcctngccct ngcggcganc cgatncgtan 120  
 cncnaagngc tcccgcagag gnagancatc canntctcga tncgcagggt atcnaaaca 180  
 aagctncctt tnaagaancc aaaatngnnn gtggncnggt tncttggagn ngtgaaggnt 240  
 ggaanatgng gaaantaccc g 261

<210> 619  
 <211> 262  
 <212> DNA  
 <213> Zea mays  
  
 <400> 619  
  
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 acgtgaaaaa gtatttgtgg atgacctcaa gaaagctgta gagctgggtca ttctacctcg 120  
 ctccatccta tctgataatc cacaggatca gcagcaagag catccacccc caccctcgcc 180  
 gccaccacct ccagaaaatc aagattcttc agaagaccaa gatgaggaag acgaagacca 240  
 agaggatgat gaagaagaaa at 262

<210> 620  
 <211> 125  
 <212> DNA  
 <213> Zea mays  
  
 <223> unsure at all n locations  
 <400> 620  
  
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 ctggtacntg cctgccctca aaggcgccgg catcaagtac gacgaccccc gtgctctacc 120  
 tcgac 125

<210> 621  
 <211> 280  
 <212> DNA  
 <213> Zea mays

<400> 621

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gctgccacca agaccgcctt gacagacttg aagagctcat gattttgcag cagcggcacc 120  
cgttttctgt accttttgat agggatgggtg aaccttcatt catgcagtaa tttttgcgta 180  
ggcctctaca atgacagggg gaaacaaacc cgagcatggc atcgtgtaaa gtgttaaggt 240  
ccaatggcct cctgtccacg tttggcgatg taaatcctcc 280

<210> 622

<211> 274

<212> DNA

<213> Zea mays

<400> 622

cagtaaggag gttagctgtt gatgccacgc ttagagcagc tgcaccatac caaaaactgc 60  
gcagagagaa agaacgtgac aaaacaagaa aggttttcgt tgaaaagact gacatgagag 120  
ccaaaagaat ggctcgaaaa gcaggtgctc tagtcatatt tgttgtggac gctagtggta 180  
gcatggctct gaatcgatg cagaatgcta aaggcgcggc gttgaagttg cttgcagaaa 240  
gctacaccag cagagatcag gtttcaatta ttcc 274

<210> 623

<211> 252

<212> DNA

<213> Zea mays

<400> 623

aaagcctatg cttcctaagg gtccagtaag gaggttagct gttgatgcca cgcttagagc 60  
agctgcacca taccaaaaac tgcgcagaga gaaagaacgt gacaaaacaa gaaagggtttt 120  
tgttgaaaag actgacatga gagccaaaag aatggctcga aaagcaggtg ctctagtcac 180  
atgtgtgtg gacgctagt gtagcatggc tctgaatcgt atgcagaatg ctaaagggtgc 240  
ggcgttgaag tt 252

<210> 624

<211> 252

<212> DNA

<213> Zea mays

<400> 624

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agctccacca taccaaaaaac tgcgcagaga gaaagaacgt gacaaaacaa gaaagggttt 120
tgttgaaaag actgacatga gagccaaaag aatgggtcga aaagcagggtg ctctagtcac 180
atgtgtgtgt gacgctagtgt gtagcatggc tctgaatcgt atgcagaatg ctaaagggtgc 240
ggcgttgaag tt 252
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<210> 625

<211> 260

<212> DNA

<213> Zea mays

<400> 625

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gacatgagac ccaaaagaat ggctcgaaaa gcagggtgctc tagtcatatt tggtgtagac 120
gctagtagta gcatggctct gaatcgtatg cagaatgcta aagggtgcggc gttgaagttg 180
cttgacagaa gctacaccag cagagatcag gtttcaatat tccttttcgt ggagattatc 240
tgagggtttgc tccaccatca 260
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<210> 626

<211> 260

<212> DNA

<213> Zea mays

<400> 626

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gacccaccg gccgagaacg ccggcctcta caaggggctc aagcagctgt cagagctcat 120
ctcttcttac cagtctctca aggacaccgg gcgtggctct cagattgtga gctccatcgt 180
cagcactgca aagcagtgca acctcgacaa ggatgtcccg ctgcccaggg aaggggagga 240
gtcccaccaa aggagcgtga 260
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<210> 627

<211> 122

<212> DNA

<213> Zea mays

<400> 627

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aacctcgaca aggatgtccc cctgcctgag gaaggggagg agtcccacc aaaggagcgt 120  
ga 122

<210> 628

<211> 306

<212> DNA

<213> Zea mays

<400> 628

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tccatatccc accctgctcg cttcatcctc atcggtcttg gtaaccgga ggaaggggag 120  
ctcaggcccc agctgctgga ccggttcggg atgcacgcgc aggttggtac cgtcagggac 180  
gccgagctca ggggtgaagat cgtggaggag agggctcggt tcgacaggga tccgaagacg 240  
ttccgtgagt cgtatcatga cgagcaggag aagctccagc agcagatatc atctgcacgg 300  
agtaac 306

<210> 629

<211> 269

<212> DNA

<213> Zea mays

<400> 629

acctcgttga cgtgctgctg gattccgctg cgtcgggggtg gaacacggtg gagagggagg 60  
gtatctccat atcccaccct gtcgcttca tctcatcgg ctctggtaac ccggggaagg 120  
ggagctcagg cccagctgc tggaccggtt cgggatgcac gcgcaggttg gtaccgtcag 180  
ggacgccgag ctcagggtga agatcgtgga ggagagggt cgtttcgaca gggatccgaa 240  
gacgttccgt gagtcgacca tgacgagca 269

<210> 630

<211> 269

<212> DNA

<213> Zea mays

<400> 630

caccctgctc gcttcatect catcggctct ggtaaccccg aggaagggga gctcaggccc 60  
cagctgctgg accggttcgg gatgcacgcg caggttggtta ccgtcaggga cgccgagctc 120  
aggggtgaaga tcgtggagga gagggtcgt ttcgacaggg atccgaagac gttccgtgag 180  
tcgtaccatg acgagcagga gaagtccagc agcagatatc atctgcacgg ataacttggc 240  
gctgtgcaga ttgaccatga ctccgtgtc 269

<210> 631  
<211> 433  
<212> DNA  
<213> Zea mays  
<400> 631

cgtcgacctg ctcccggaca tccgcgtcgt cgtcggcgac cccttcaact ccgacccgga 60  
cgaccccagag gtcattgggcc ccgaggtccg ccagcggggtc ctgcaggggg acaccggcct 120  
ccccgtcacc accgccaaga tcaccatggt cgacctgccc ctcggcgcca ccgaggaccg 180  
cgtctgcggc accattgaca tcgagaaggc gctcaccgag ggcgtcaagg cgttcgagcc 240  
cggcctgctc gccaaaggcca acaggggcat actgtacgtc gacgaggta acctgctgga 300  
cgaccacctc gtcgacgtgc tgctggattc cgctgcgtcg ggggtggaaca cgggtggagag 360  
ggaggggtatc tccatatccc accctgctcg cttcatectc atcggctctg gtaacccgga 420  
ggaaggggag etc 433

<210> 632  
<211> 281  
<212> DNA  
<213> Zea mays  
<400> 632

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gtcgtcgtcg gcgacccctt caactccgac ccgacgacc ccgaggtcat gggccccgag 120  
gtccgccagc gggtcctgca gggggacacc ggcctccccg tcaccaccgc caagatcacc 180  
atggtcgacc tgcccctcgg cgccaccgag gaccgctct gcggcaccat tgacatcgag 240  
aaggcgctca ccgagggcgt caaggcgttc gagccccgcc t 281

<210> 633  
 <211> 273  
 <212> DNA  
 <213> Zea mays

<400> 633

tgcccctcgg cgccaccgag gaccgcgtct gcggcaccat tgacatcgag aaggcgctca 60  
 ccgagggcgt caaggcggtc gagcccggcc tgctcgccaa ggccaacagg ggcatactgt 120  
 acgtcgacga ggtcaacctg ctggacgacc acctcgtcga cgtgctgctg gattccgctg 180  
 cgtcgggggtg gaacacggtg gagagggagg gtatctccat atcccacct gctcgcttca 240  
 tcctcatcgg ctctggtaac ccggaggaag ggg 273

<210> 634  
 <211> 227  
 <212> DNA  
 <213> Zea mays

<400> 634

agatcggcgg cgatcatgatc atgggcgaca ggggcacggg gaagtcacc accgtccgct 60  
 ccctcgtcga cctgctcccg gacatccgcg tcgtcgtcgg cgaccccttc aactccgacc 120  
 cggacgaccc cgaggatcatg ggccccgagg tccgccagcg ggtcctgcag ggggacaccg 180  
 gcctccccgt caccaccgcc aagatcacca tggtcgacct gccctc 227

<210> 635  
 <211> 372  
 <212> DNA  
 <213> Zea mays

<400> 635

cccacgcgtc cgggcaagtc gtcaatgttg ccaacaacct cagcaagata cttggtttcg 60  
 gcctgtcggg accatgggtg cagtacctgt ccacgaccaa gttcgtcaga gcggacagag 120  
 agaagatgag ggttctgttt gggttcttgg gggagtgcct gaggctcgtc gtgcaagaca 180  
 acgagctggg aagcttgaag cttgcctcgg aggggaagcta cgtcgagcct ggccctggcg 240  
 gcgacccgat ccgtaaccgg aagggtgctc cgacagggaa gaacatccac gctctcgatc 300  
 cgcaggccat cccaaccacg gctgccttga agagcgccaa gatcgtcgtg taccgtctcc 360  
 tggagaggca ga 372



<210> 636

<211> 263

<212> DNA

<213> Zea mays

<400> 636

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gacggtcgtc gtgcaagaca acgagctggg aagcttgaag cttgccctcg agggaagcta 120
cgtcgagcct ggccctggcg gcgacccgat ccgtaaccg aaggtgctcc cgacagggaa 180
gaacatccac gctctcgatc cgcaggccat cccaaccacg gctgccttga agagcgccaa 240
gatcgtcgtg gaccgtctcc tgg 263
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<210> 637

<211> 272

<212> DNA

<213> Zea mays

<400> 637

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cccacgcgtc cggttgccaa caacctcagc aagatacttg gtttcggcct gtcggaacca 60
tgggtgcagt acctgtccac gaccaagttc gtcagagcgg acagagagaa gatgaggggt 120
ctgtttgggt tcttggggga gtgcctgatg ctcgtcgtgc aagacaacga gctgggaagc 180
ttgaagcttg cctcagagg aagctacgtc gagcctggcc ctggcggcga cccgatccgt 240
aaccgaagg tgctcccgac agggaagaac at 272
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<210> 638

<211> 273

<212> DNA

<213> Zea mays

<223> unsure at all n locations

<400> 638

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gaatcttgcc ctcgagggaa gctacgtcga gcctggccct ggcggcgacc cgattncgta 120
accgaaggt gctcccgaca ggaagaacat ctangctctt nnatccgcan gccatcccaa 180
ccacggctgc cttgaagagc gncaagatcg tcgtggaccg tctcctggag aggcagaagg 240
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ctgacaatgg nggcaagtac cctgagacgg tcg

273

<210> 639  
<211> 301  
<212> DNA  
<213> Zea mays

<400> 639

acttgctgaa gcacatagag gtgttcttta tgttgatgaa ataaatctat tggatgatgg 60  
cataagcaat ctacttctga atgtcttgac ggagggagtt aacattgtgg aaagagaggg 120  
cattagcttt cgccatccct gcaaaccact tctaattgct acttacaatc cagaggaagg 180  
gtctgtacgt gaacacttgc ttgatcgat tgcaattaat ttaagtgtg atcttccaat 240  
gagttttgat gaccgcgttg aagcagtggg tattgcaaca cggtttcagg agtctagcaa 300  
a 301

<210> 640  
<211> 307  
<212> DNA  
<213> Zea mays

<400> 640

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aatgtcttga cggagggagt taacattgtg gaaagagagg gcattagctt tcgccatccc 120  
tgcaaaccac ttctaattgc tacttacaat ccagaggaag gatctgtacg tgaacacttg 180  
cttgatcgta ttgcagttaa ttttaagtgt gatcttccaa tgagttttga tgaccgcgtt 240  
gaagcagtgg atattgcaac acggtttcag gagtctaggg aagaagtttt caaattgggtg 300  
gaagaaa 307

<210> 641  
<211> 278  
<212> DNA  
<213> Zea mays

<223> unsure at all n locations  
<400> 641

tgttgatgaa ataaatctat tggatgatgg cataagcaat ctacttctgn atgtcgtgac 60  
ggagggagtt aacattgtgg aaagagaggg gattagcttt cgccatccct gcaaaccact 120

tctaattgct acttacaatc cagaggaagg atctgtacgt gaacactctg ctgatcgtat 180  
 tgcattaatt aagtgtgat cagcaatgag tttgatgacg cgttgaacat ggatatcaca 240  
 ccggttcaga gctacaagaa tttcaatcgt ggagaaaa 278

<210> 642  
 <211> 426  
 <212> DNA  
 <213> Zea mays

<400> 642

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 actcgtccaa cgtgaacctg gccgtggaga acgcgtcatg gaccgacgag aagcagctcc 120  
 aggacatgta cctgagccgc aagtccttcg cgttcgacag cgacgccccca ggggcaggca 180  
 tgaaggagaa gcgcaaggcg ttcgagctcg ccctggcgac ggcggacgcc acgttcacaga 240  
 acctcgactc gtcggagatc tcgctgacgg acgtgagcca ctacttcgac tcggacccga 300  
 ccaagctcgt gcaggggctg cgcaaggacg ggcggggcgcc gtcctcgtac atagccgaca 360  
 ccaccacggc gaacgcccag gtgaggacgc tgtcggagac ggtgcgcctc gacgcgagga 420  
 ccaagc 426

<210> 643  
 <211> 312  
 <212> DNA  
 <213> Zea mays

<400> 643

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 gtccaacgtg aacctggccg tggagaacgc gtcatggacc gacgagaagc agctccagga 120  
 catgtacctg acccgcaagt ccttcgcgtt cgacagcgac gcccagggg caggcatgaa 180  
 ggagaagcgc aaggcgcttcg acctcgccct ggcgacggcg gacgccacgt tccagaacct 240  
 cgactcgtcg gagatctcgc tgacggacgt gagccactac ttgactcgg acccgaccaa 300  
 gctcgtgcag gg 312

<210> 644  
 <211> 287

<212> DNA  
 <213> Zea mays  
 <400> 644  
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 ggccggcgcc gtcctcgtac atagccgaca ccaccacggc gaacgccagg tgaggacgct 120  
 gtcggagacg gtgcgcctcg acgcgaggac caagctgctg aaccccaagt ggtacgaggg 180  
 gatgatgaag agcgggtacg aggggggtcag ggagatcgag aagcgggtca ccaacaccgt 240  
 cgggtggagc gccacgtctg ggcagggtcga caactgggtc tacgagg 287

<210> 645  
 <211> 279  
 <212> DNA  
 <213> Zea mays  
 <400> 645  
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 gaagcgcaag gcgttcgagc tcgccctggc gacggcggac gccacgttcc agaacctcga 120  
 ctcgtcggag atctcgctga cggacgtgag ccactacttc gactcggacc cgaccaagct 180  
 cgtgcagggg ctgcgcaagg acggggcggc gccgtcctcg tacatagccg acaccaccac 240  
 ggcgaacgcc aggtgaggac gctgtcggag acggtgcgc 279

<210> 646  
 <211> 280  
 <212> DNA  
 <213> Zea mays  
 <400> 646  
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 taggcggagg agctcggcgt gtcgctaagg gaagcggcga caagggtgtt ctcgaaacgca 120  
 tcaggctcct actcgtccaa cgtgaacctg gcggtggaga acgcgtcatg gaccgacgat 180  
 aagcagctcc aggacatgta cctgagccgc aagtccttcg cgttcgacag cgacgccctt 240  
 ggggcaggca tgaaggagaa gcgcaaggcg ttcgagctcg 280

<210> 647  
 <211> 213

<212> DNA  
 <213> Zea mays  
  
 <400> 647  
  
 ggcgacggcg gacgccacgt tccagaacct cgactcgtcg gagatctcga tgacggacgt 60  
 gagccactac ttcgactcgg acccgaccaa gctcgtgcag gggctgcgca aggacgggcg 120  
 ggcgccgtcc tcgtacatag ccgacaccac cacggcgaac gccaggtga ggacgctgtc 180  
 ggagacgggtg cgctcgcgacg cgaggaccaa gct 213

<210> 648  
 <211> 166  
 <212> DNA  
 <213> Zea mays  
  
 <400> 648  
  
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 gtgttctcga acgcatcagg ctctactcgc tccaacgtga acctgacggt ggagaacgcg 120  
 tcatggaccg acgagaagca gctccaggac atgtacctga gccgca 166

<210> 649  
 <211> 449  
 <212> DNA  
 <213> Zea mays  
  
 <400> 649  
  
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 cgtcgggtgg agcgccacgt ctgggcaggt cgacaactgg gtctacgagg aggccaactc 120  
 cacgttcacg gaggacgagg cgatgaggaa gaggtcatg gacaccaacc ccaattcggt 180  
 caggaagttg gtgcagacct tcctggaagc cagtggcaga ggctactggg agacaacgga 240  
 ggagaacctg gacaggctca gggagctcta ttcggagggt gaagacaaga ttgaggggat 300  
 tgacaggtaa attgatttgc cagatcggtc ggccgatcgg ttccagcatt caaccataa 360  
 cgagcttgga actcttctgc ctcatggga ctcttgta atgtctgggt gtgtgattta 420  
 tatatatata aaagtgtaac atgtaatac 449

<210> 650  
 <211> 305

<212> DNA  
 <213> Zea mays  
 <400> 650  
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 ggtctacgag gaggccaact ccacgttcat cgaggacgag gcgatgagga agaggctcat 120  
 ggacaccaac cccaattcgt tcaggaagtt ggtgcagacc ttcttggaag ccagtggcag 180  
 aggctactgg gagacaacgg aggagaacct ggacaggctc agggagctct attcggaggt 240  
 tgaagacaag attgagggga ttgacaggta aattgatttg ccagatcggt cggccgatcg 300  
 gttcc 305

<210> 651  
 <211> 270  
 <212> DNA  
 <213> Zea mays  
 <400> 651  
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 gggcaggtcg acaactgggt ctacgaggag gccaaactcca cgttcatcga ggacgaggcg 180  
 atgaggaaga ggctcatgga caccaacccc aattcgttca ggaagttggg gcagaccttc 240  
 ctggaagcca gtggcagagg ctactgggag 270

<210> 652  
 <211> 440  
 <212> DNA  
 <213> Zea mays  
 <223> unsure at all n locations  
 <400> 652  
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 acgtcctact aggacgaggc gatgaggaag aggctcatgg acaccaacce caattcgttc 120  
 aggaagttgg tgcagacctt cctggaagcc agtggcagag gctactggga gacaacggag 180  
 gagaacctgg acaggctcag ggagctctat tcggaggttg aagacaagat tgaggggatt 240  
 gacaggtaaa ttgatttgcc agatcggctg gccgatcggt tccagcattc aacccataac 300

gagcttgga ctcttctgcc tcattgggac tcttgtacaa tgtctgggtg tgtgatttat 360  
 atatataaa aaagtgtgaa catgtaatac tggaggatac aatatttaac anagaggggtg 420  
 gcggttggtc catccaaaac 440

<210> 653  
 <211> 213  
 <212> DNA  
 <213> Zea mays

<400> 653

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 aaaattcata tcagaagtga gagcaccaaa aagtaaggaa ggttatgcat ccataggttg 120  
 cggttctcct ctacgacaaa ttactgatgc acaggctgaa gcactgaggg aggcattaca 180  
 tgggaaagat gccctgccaa cgtgtatggt gga 213

<210> 654  
 <211> 261  
 <212> DNA  
 <213> Zea mays

<400> 654

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 ttaccaagct cgttggttctt cccctttacc ctcaagtact catatcaaca agtgggtcaa 120  
 gcattcgtgt tctccaagac attgtcaagg aagattcata tttttctggg ttgccaat 180  
 ccattattga atcatggtac caacgagatg gctatgtgaa atcaatgtct gacctaat 240  
 aaaaggagct ctgggccttc t 261

<210> 655  
 <211> 291  
 <212> DNA  
 <213> Zea mays

<400> 655

tgagatccag aggaatctta aatggtcaca ctttggcgta tcagagtcgg gtgggaccag 60  
 ttcaatggct gaagccatat actgatgaag ttttagtaga aattgggtcag aacgggtgtga 120  
 agagcctcct ggctgttcca gtaagcttcg tgagcgagca cattgagaca ctggaagaaa 180

tagacatgga gtacaaggag ttggctctgg aatcaggcat tgagaactgg ggccgggtcc 240  
 ctgctcttgg atgcacttcg acgttcatct ccgacttgca gatgcggttg t 291

<210> 656  
 <211> 275  
 <212> DNA  
 <213> Zea mays

<400> 656  
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 gtgggggctgg acaaagagcg cggagacctg gaatagccgt gcggcgatgc tggccgtgct 120  
 ggctctcctg gtgctggaag tgaccaacgg cgaaggggtc ctgcatcaat ggggaatcct 180  
 gcctctgttc cgctgagccg acaattctgt tcatgatggg gtcataattt tgctgcagcc 240  
 gaaggaagtt ttgaacttct gatgctgtat atgaa 275

<210> 657  
 <211> 261  
 <212> DNA  
 <213> Zea mays

<223> unsure at all n locations  
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 atggctgaag ctatatactg atgaagtatt agtagaactt ggtgaaaagg gtgtgaagag 120  
 cctactggct gttacagtaa gccttgagag taaagacatc gagacattgg aagaaattga 180  
 catggagtac aaggagttgg ctctggaatc aggcatacag aactggggtc gggttcctgc 240  
 tctgatnnac acttcaacat t 261

<210> 658  
 <211> 398  
 <212> DNA  
 <213> Zea mays

<400> 658  
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 actcacacct cactttttct gctaaattgt ggcagtgggtg ataattgata tgcatagact 120  
 gtacttattt aatgactatg aaataccatt taacatagct attgtgctg acagggtaaa 180



tctaccaagg acacacatag ttaagccttg ctcagctgac gactgctaag gaatttctgt 240  
 taagtgcagt ttgggggggtc ttctcaacca ttgcttgact taaggcaaca cattagagga 300  
 tattcatcag catcagaggc aattcttccc aatctgattt gagaaaaaaa tttgttggca 360  
 acgaaaaatt agtgttttct tgctgaatct tgggggggc 398

<210> 659  
 <211> 356  
 <212> DNA  
 <213> Zea mays

<400> 659

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 caggtaaagt ctattaaaat ttggtaggta attgtttcac taacaacgga gttgtgccct 120  
 tatgttttaa tgatcacctt gtaagaacac taggaatgga aactgccaag ttatatagga 180  
 ttcaggagtt accagttcct taattttcca ggtcaccatt aactagtgtt aacatttatt 240  
 gtacacgcag agtcgggttg ggccagttca atggctgaag ccatatactg atgaagtttt 300  
 agtagaactt ggtcaaaagg gtgttaagag cctcctggct gttccagtaa gctttg 356

<210> 660  
 <211> 266  
 <212> DNA  
 <213> Zea mays

<400> 660

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 cctctatacc ctcagttctc catatcaact agtggttcaa gtctccgttt attggagagc 180  
 atattcagag aggatgagta tctcgtgaat atgcaacata cagttatacc ttcttggtac 240  
 caacgtgaag gatatatcaa ggctat 266

<210> 661  
 <211> 260  
 <212> DNA  
 <213> Zea mays

<400> 661

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 gccaacgtgt atgttggaat gcggtattgg catccctatc actgaagaag ccatagaaca 120  
 aacaaaacgg gatgcaatca cgaaacttgt tgtgttgctt ctataccctc agttctccat 180  
 atcaactagt ggttcaagtc tccgtttatt ggagagcata ttcagagagg atgagtatct 240  
 cgtgaatatg caacatacag 260

<210> 662  
 <211> 195  
 <212> DNA  
 <213> Zea mays

<400> 662

cccacgcgtc cgcccacgcg tccgccacg cgtccgcca cgcgtccgat ggaatcacga 60  
 aacttgttgt gttgcctcta taccctcagt tctccatata aactagtggg tcaagtctcc 120  
 gtttattgga gagcatattc agagaggatg agtatctcgt gaatatgcaa catcacgtta 180  
 taccttcctg gtacc 195

<210> 663  
 <211> 430  
 <212> DNA  
 <213> Zea mays

<223> unsure at all n locations  
 <400> 663

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 aacctccaca agttttactg gttctaccac caaacatgag cagagcttgc atggaaatgt 120  
 taagccggtg caattggcgg caaatgaatc ctctcgtttg gcttacagaa gtccagcact 180  
 taaaaaccag tggaatcttc ctgctagttc ttctccact aatgtgggta ccacctttga 240  
 tgataacgaa cacgtgtctt ccagtgttat tgaagaaaaa gttggagtac tgttattaaa 300  
 ccttggtggg ccagagacac ttgacgatgt tcaaccattt ttattcaacc tatttgctga 360  
 tccagatata attcgactcc ctangctctt caagtttctt cnaagacact gggcaaacnt 420  
 ntattttaatt 430

<210> 664

<211> 199  
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 <213> Zea mays

<400> 664

aaacaacctc cacaagtttt actggttcta ccaccaaaaca tgagcagagc ttgcatggaa 60  
 atgttaagcc gttgcaattg gcggcfaatg aatcctctcg tttggcttac agaagtccag 120  
 cacttaaaaa ccagtggat cttcctgcta gttcttcctc cactaatgtg gttaccacct 180  
 ttgatgataa cgaacacgt 199

<210> 665  
 <211> 443  
 <212> DNA  
 <213> Zea mays

<400> 665

gccacgtttg gtagttgcta cttgctacac cggaggaaga agaacaagta gtgcttttct 60  
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 gccatgtct tcgtcgggcc cctccccggc gacgggaatc cacgcgtcgc cgccgttggg 180  
 ccttttgccg gcgacgggaa cccatcacac cagggtcatgg ggcaaaacaa cctccacaag 240  
 ttttactggt tctaccacca aacatgagca gagcttgcac ggaaatgtta agccgttgca 300  
 attggcggca aatgaatcct ctggtttggc ttacagaagt ccagcactta aaaaccagtg 360  
 gaatcttcct gctagttctt cctccactaa tgtggttacc acctttgatg ataacgaaca 420  
 cgtgtcctcc agtgttattg aag 443

<210> 666  
 <211> 304  
 <212> DNA  
 <213> Zea mays

<400> 666

gagactccat atcaacaagt agcatatfff ttactaagaa gaagagaagg gaagattcat 60  
 atttttctgg cttgccaatc tccattatcg aatcatggta ccaacgtgat ggctatgtga 120  
 aatcaatggc tgacctaatt gaaaaagagc tatctgcctt ttccaatcct gaagaggtaa 180  
 tgatatgctt cagtgcacat ggtgtgccac ttacctatgt tcaggatgct ggagatcctt 240

acagagatca gatggaggat tgtattttctg tgatcatggg ggagctgaga tccagaggaa 300  
tctt 304

<210> 667  
<211> 256  
<212> DNA  
<213> Zea mays

<400> 667

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gtatcgaatc atggtagcaa cgtgatggct atgtgaaatc agtggctgac ctgattgaga 120  
aagaggtatc tgccttttcc agtcctgaag aggtagtgat attcttcagt gcacatagtg 180  
tgccacttag ctatgtgcag gatgctggag atccttacag agatcagatg gatgattgta 240  
tttctttgat cgtggg 256

<210> 668  
<211> 263  
<212> DNA  
<213> Zea mays

<400> 668

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agatccttac agagatcaga tggaggattg tattgctttg atcatggggg agttaagatc 120  
aagaggaatc ttaaatagtc acactttggc gtaccagagt cgggtggggc cagttcaatg 180  
gctgaagcca tatactgatg aagttttagt agaacttggc caaaagggtg tgaagagcct 240  
catggctgtt ccagtaagct ttg 263

<210> 669  
<211> 266  
<212> DNA  
<213> Zea mays

<400> 669

agaggttatg atattcttca gtgcacatgg tgtgccactt acctatgttg aggatgctgg 60  
agatccttac agagatcaga tggaggattg tattgctttg atcatggggg agttaagatc 120  
aagaggaatc ttaaatagtc acactttggc gtaccagagt cgggtggggc cagttcaatg 180

gctgaagcca tatactgatg aagtttttagt agaacttggt caaaagggtg tgaagagcct 240  
 cctggctgtt ccagtaagct ttgtga 266

<210> 670  
 <211> 276  
 <212> DNA  
 <213> Zea mays

<400> 670

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 tacctatggt caggatgctg gagatcctta cagagatcag atggaggatt gtattttcttt 120  
 gctcatgggg gagctgagat ccagaggaat cttaaagtgt cacacttttg cgtatcagag 180  
 tcgggtggga ccagttcaat ggctgaagcc atatactgat gaagtttttag tagaacttgg 240  
 tcagaacggt gtgaagagcc tcctggctgt tccagt 276

<210> 671  
 <211> 307  
 <212> DNA  
 <213> Zea mays

<400> 671

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 ctatttgctg atccagatat cattcgactc cctaggctct tcaggtttct tcaaagacca 120  
 ctggccaaac ttattttctac ttttagagct cctaagagta aagaagggtg tgcttcaatg 180  
 gtggtgggtc gccgttaagg aaaattactg atgaacaggc gaatgctttg aagattgccc 240  
 tggaaaagaa aaaattgaac gcaaacatat atgttgggat gcggtattgg taccctttca 300  
 cagaaga 307

<210> 672  
 <211> 310  
 <212> DNA  
 <213> Zea mays

<400> 672

ctgttattaa accttggtgg tccagagaca cttgacgatg ttcaaccatt tttattcaac 60  
 ctatttgctg atccagatat cattcgactc cctaggctct tcaggtttct tcaaagacca 120

ctggccaaac ttatttctac ttttagagct cctaagagta aagaagggtg tgcttcaatt 180  
 ggtggtgggt cgccgttaag gaaaattact gatgaacagg cgaatgcttt gaagattgcc 240  
 ctggaaaaga aaaaattgaa cgcaaacata tatgttggga tgcggtattg gtaccctttc 300  
 acagaagagg 310

<210> 673  
 <211> 122  
 <212> DNA  
 <213> Zea mays

<400> 673

cccacgcgtc cggtttcaat cgggtggtggg tcaccattga ggaaaattac tgatgagcag 60  
 gcaaattgctt tgaagattgc tctggaaaag aaaaaattga acgcaaatat atatgttggg 120  
 at 122

<210> 674  
 <211> 431  
 <212> DNA  
 <213> Zea mays

<223> unsure at all n locations  
 <400> 674

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 agcttgggca gaaaggggta aagagcctgc ttgctgttcc cattagtttt gttagcgaac 120  
 acattgaaac tttggaagaa atcgatgtgg agtaciaaaga gttggctttg gaatctggca 180  
 tcaagcactg gggacggggt ccagcactag gttgcgaacc cacattcatt tcggatcttg 240  
 ctgatgctgt tattgaaagc ctaccttatg ttggcgcaat ggcagtttcc aatcttgagg 300  
 ctcggcagtc tctcgtaccc ctcgggagcg tggaggagct gctagcagca tacgactcga 360  
 agcgcgatga gctccctcca ccggtaatcg tgtgggagtg gngctggaca aagagcgcgg 420  
 agacctggaa t 431

<210> 675  
 <211> 298  
 <212> DNA  
 <213> Zea mays

<400> 675

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ccagtggaaat ggctgaaacc gtacactgat gagacaatta ttgagcttgg gcagaaaggg 120  
gtaaagagcc tgcttgctgt tcccattagt ttgttagcg aacacattga aactttggaa 180  
gaaatcgatg tggagtacaa agagttggct ttggaatctg gcatcaagca ctgggggacgg 240  
gttccagcac taggttgcga acccacattc atttcggatc ttgctgatgc tgttattg 298

<210> 676  
<211> 308  
<212> DNA  
<213> Zea mays

<400> 676

gagacgcgtg gcggacgcgt gggcggacgc gtggggccga gttggaccag tggaatggct 60  
gaaaccgacc actgatgaga ctattattga gattgggcag aaaggggtaa agagcctgct 120  
tgctgttccc attagttttg ttagcgaaca cattgaaact ttggaagaaa tcgatgtgga 180  
gtacaaagag ttggcttttg aatctggcat caagcactgg ggacgggttc cagcactagg 240  
ttgcgaaccc acattcattt cgtatcttgc tgatgctggt attgaaacct accttatggt 300  
ggcgcatg 308

<210> 677  
<211> 174  
<212> DNA  
<213> Zea mays

<400> 677

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tgtttagcgaa cacattgaaa ctttggaaga aatcgatgtg gagtacaaag agttggcttt 120  
ggaatctggc atcaagcact ggggacgggt tccagcacta ggttgcgaaac ccac 174